A Clinical Lecture

ON

TWO CASES OF INJURY TO THE HEAD.

Delivered at St. Mary's Hospital on March 4th, 1898,

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GENTLEMEN,—From time to time I have taken cases of head injury as the subject of clinical lectures and more than one of them has been published, but it is doubtful whether we have had before two cases of as much interest and instruction as those which I propose to-day to put side by side as the theme of clinical remarks. The first was that of a man, aged forty-nine years, for an account of whose history I shall draw from the admirable notes taken by Mr. Wells. He was brought to the hospital at 1.15 P.M. on Dec. 21st, 1897. He was a guard on the Metropolitan Railway and in the discharge of his duties, while in the act of waiting on the platform, in a manner which one sees every day, at Royal Oak Station, for the rear van of the moving train to come up to him, he was knocked down by an open carriage door. He was struck on the front of the forehead between the eyes and then was thrown violently on the back of his head. He was dazed but not unconscious and was brought at once to St. Mary's Hospital, arriving here within a short time of the accident. He was then extremely collapsed but was perfectly conscious. He answered questions and gave both his name and address. Blood and cerebro-spinal fluid were flowing from the left ear; his respirations were 20 and his pulse was 90. No fracture could be detected by external examination, but there was a bruise in the front of the forehead and some slight swelling over the left temporal region. The pupils were equal and reacted, though sluggishly, to light. There were no one-sided symptoms of any kind whatever, the bleeding from the ear alone excepted.

Let us here pause for a moment in the history. Up to this point of it the conclusion seemed warranted that the man had sustained a pretty severe concussion of the brain and in all probability a fracture of the base of his skull. The serious nature of his injury admitted of no doubt and in a case of the kind it would be no great surprise if in the course of the next few hours some more definite evidence than collapse and bleeding from the ear should arise to increase the anxiety about him. The scene changed with remarkable suddenness, and returning to the notes we learn that soon after being put to bed he began to lose consciousness, so that when I reached the hospital at 2 P.M., three-quarters of an hour after his arrival, the coma was fairly profound. In this interval there had been some clonic movements of the left arm, but these had quickly given place to spastic rigidity, which quickly involved all the limbs equally. When I first saw him cutaneous stimuli, such as pinching and pulling his hair, made little impression, and I could hardly believe that so short a time ago the man had actually given his name and address. The coma at once suggested that the brain was being subjected to compression, and as I stood beside him for a minute or two it was obvious to all that the unconsciousness was deepening, that both pulse and respiration were failing, and that artificial respiration might become necessary. Another indication of supreme importance was also present, for the pupils, which before had told us nothing, now told a great deal. No longer equal and mobile, they were now fixed and unequal, the left being much larger than the right. Clearly there was no time to lose if we were to give relief. Within a quarter of an hour of my arrival the man was in the theatre and we had begun to shave his head preparatory to opening his skull. This we proceeded to do in the usual way over the left middle meningeal, it being a warrantable assumption that inasmuch as there was bleeding from the left ear and the left pupil was dilated, suggestive of pressure on the left third nerve at the base of the skull, there might be bleeding from a branch of this vessel to which brain compression and the resulting coma were due. Opening having been made by the trephine it was at once evident that there was no hæmorrhage between the dura mater and the bone and that the suspected cause of compression must be sought for elsewhere. Those of you who saw the man on the table will remember that the dura at once bulged prominently into the trephine hole and that it had the blue appearance which is so striking when there is blood beneath it. Furthermore, no brain pulsation could be felt. I therefore proceeded to open the dura freely and this at once gave exit to a considerable amount of blood. Feeling confident, however, that the extravasated blood lay chiefly at the base of the skull a small tube attached to the irrigator was passed down to this part and a very considerable quantity of blood, both fluid and clotted, was thus washed out. The effect was remarkable, for not only did the respiration and pulse materially improve but, what is of greater interest, the left pupil now became of the size of the right and was no longer dilated. This, unhappily, was the full measure of the improvement, and inasmuch as the bleeding came from some inaccessible source there was no alternative but to sew up the wounds and to send the man back to bed. I had no hope that his life could be saved. As a matter of fact he never regained consciousness and died at 8.30 P.M., the respiration having at times been extremely laboured and somewhat like Cheyne-Stokes in character, the pulse having been as high as 169, the temperature having steadily risen to 107° F. immediately before death, and more bleeding having obviously occurred. The necropsy was made by Mr. Low and I was myself present at it. I wish you had been present also, for you would have had the opportunity of seeing in an unusual degree one of the varieties of intracranial hæmorrhage as the result of injury. The so-called sub-arachnoid space over both hemispheres was practically filled with blood, fluid and clotted, but the greatest quantity of blood was at the base, and it had evidently accumulated again in much the same position and amount as we had seen on the operation table. Doubtless it had come from more vessels than one. Extensive laceration of the left orbital lobe and of the anterior extremities of both temporal lobes was found, but the internal parts of the brain were unaffected. There was most extensive basal fracture, for not only were several of the sutures sprung, but lines of fracture ran longitudinally from the sutures and also transversely through the basilar process. These fractures must, I think, have been caused by the fall on the back of the head and not by the blow on the brow, for the lambdoid suture was sprung and gaped almost throughout its entire length. With such lesions it is no wonder that the patient died, but it is at any rate remarkable that he should for a time have been conscious and been able to give his name and address on arrival at the hospital.

I ask you to bear this fact about the case in mind, for the second case which I will briefly relate to you presented in less degree the same features. For the notes I am indebted to Mr. Hunt. From these we learn that a man, aged fifty years, was admitted into St. Mary's Hospital on Jan. 14th, 1898. While walking on the Metropolitan Railway he was caught in the back by the buffer of an engine and knocked down so that his head came violently in contact with the edge of some iron girders lying on the ground. On admission he was half unconscious and brain matter was protruding from a severe lacerated wound over the left temple. The finger at once detected that there was considerable comminution and depression of bone and we had the patient moved straightway to the theatre. He was not so unconscious that we could do without the aid of an anæsthetic, and the parts having been exposed fragments amounting in all to something larger than a five-shilling piece were removed from the temporal and parietal bones. The membranes were extensively lacerated and the finger passed into a large area of broken-up cerebral matter. This being so it will be no surprise to hear that the man was absolutely hemiplegic on the right side. Moreover, his breathing was entirely diaphragmatic. The pupils were unequal, the left being the larger, and both reacted to light. The patient never regained consciousness and before his death on the morning of the 17th the temperature had risen to 104° F. Mr. Low made the post-mortem examination, but was permitted to examine the head only, an unfortunate restriction, because the mode of accident and the after-symptoms rather suggested that the man might have received some injury to the spine as well as to the head. The fracture involved the

squamous portion of the left temporal and adjoining parietal bones and the damaged parts of the brain included the lower part of the left Rolandic area and the upper part of the temporo-sphenoidal lobe. There was extensive sub-arachnoid hæmorrhage over both hemispheres and the upper surface of the cerebellum. Save the lateral ventricles, both of which contained some blood-stained fluid, the internal parts of the brain appeared to be normal.

I have purposely put these two cases in apposition, because although both of them were inevitably fatal they serve to throw into the prominence of contrast the sort of evidence for which the surgeon seeks in all severe head injuries that he may determine whether or not he is likely to be able to save life by resort to surgical measures. As far as injury to bone is concerned it goes without saying, in these days of asepsis, that there ought never to be hesitation or delay in removing useless fragments of displaced bone or in restoring bone or portions of bone to their normal position and it was on this principle that we acted in the second case, where a large piece of the side of the skull had been driven in. You have seen many cases thus successfully treated, but unhappily in this instance the extent and character of the injury sustained by the brain itself rendered operative proceedings futile. An absolute hemiplegia following a compound depressed fracture and not relieved by the elevation of bone told its own tale. In the first case, however, a totally different condition of things presented. No *direct* evidence of fracture was to be obtained—in basal fractures there rarely is—and certainly as far as the skull was concerned there was no reason for resort to operation. Nevertheless, I felt that in the first case much more than in the second the need for operation was urgent and I was much more anxious to have the patient quickly on the table in order to open his head. For we were in the presence of this most suspicious indication of intracranial pressure, the result of injury, that the man had become more and more unconscious each minute that he was in bed, having originally as you remember been distinctly conscious and able to give his address and name. To the very partial loss of consciousness which first characterised his state when the collapse was extreme there was clearly being something added to produce unconsciousness in an increasing degree the further he was removed in time from the collapse in which he first came to the hospital. The strong presumption therefore was that bleeding was going on within the cranium and that the brain was being gradually compressed and rendered anæmic and functionless by the squeezing to which it was being subjected. Here, indeed, was incontrovertible evidence of the need for resort to surgical measures in the hope of averting the peril of death. Was the trephine hole, however, to be made at any haphazard spot? Clearly not; and the question had to be asked, What in the circumstances was the probable source of bleeding? The answer to this question admitted of little doubt. From the anterior or other branch of one of the middle meningeal arteries, the proximity of that vessel to the bone making it liable to be torn across in cases of fracture and frequently to be the source of hæmorrhage between the dura mater and the bone. But you will ask why we chose the left side. For this weighty reason, that there had been bleeding from the left ear and that in the progress of the coma the left pupil had become dilated and larger than the right. It is an established fact that in middle meningeal hæmorrhage this symptom is of not uncommon occurrence, because the clot of blood in increasing tends to make its way towards the base of the skull and pressing forwards on the sphenoidal fissure there directly interferes with the function of the third nerve.

Many years ago in a clinical lecture[1] Mr. Hutchinson directed attention to this phenomenon as regards the pupil and the cases he records are worth mentioning. In one case, that of a boy admitted to hospital with slight concussion of the brain and indications of fracture in the anterior part of the base, it was noticed on the second day after admission, when consciousness had been to a large extent regained, that the right pupil, which had previously been of the same size as the left, had become dilated and fixed. A few hours afterwards the house surgeon found the boy insensible, with difficult and irregular breathing, and within a few minutes the patient died. He had been conscious up to within half an hour of his death and beyond the symptoms which usually attend severe concussion there was none excepting the dilatation of the right pupil. After death a fracture was found crossing the line of the meningeal artery and there was a large clot of blood between the dura mater and the bone extending downwards into the sphenoidal fissure and compressing the third nerve. In another case with the like symptoms precisely the same condition of things was found and many cases have been recorded since by other surgeons. I show you a drawing of the sort of fracture which may be associated with rupture of the middle meningeal artery. The line of fracture is in this case vertical, running to the base and passing through the anterior inferior angle of the parietal bone, but the same thing may happen when the fracture is horizontal in direction. Do not go away with the idea that pressure of blood is the only cause of a dilated pupil, but do not in any case fail to attribute to it such value as accompanying indications may seem to warrant. For these you will, of course, always look; for evidence of the direction of the fracture if any there be, for indications of paralysis, at the character of the coma and the period of its onset, at the state of both respiration and circulation and any marked change in either,—these in combination and each one separately may help in the diagnosis or in the attempt to arrive at one. Certain diagnosis is, however, often impossible, approximate diagnosis is perhaps the best to be attained to, erroneous diagnosis is to be excused, and increasing experience will only tend to teach you that in head injuries the symptoms will too frequently belie the classical indications of this or that lesion. Every case, however simple, presents its own problems to be solved.

Let us return, however, from this digression to our own case and ask if we were right in our conclusions and in what we did. We were both right and wrong—right in the conclusion that the brain was being subjected to pressure, right also in using the trephine, but wrong in our conjecture as to the source of the blood. Here conjecture alone is possible, for it is obvious that in these cases until the opening has been made there is no means of telling which vessel may be bleeding within the skull and we must be prepared to find a condition of things for which no relief can be given. In a case which I have published we found ourselves in the same dilemma. Intracranial hæmorrhage had been correctly diagnosed from symptoms of intense urgency, but the source of the hæmorrhage was a rent in one lateral sinus and the bleeding could not be stayed. It is, however, a great thing in any case to be able to speak with comparative certainty as to the existence of intracranial bleeding, for relief may perchance be given if resorted to without delay. So great, however, may be the urgency that artificial respiration alone will keep the patient alive until his head has been opened. I have already touched on the several indications which really guide us, but they are very likely to be missed unless the patient be carefully watched minute by minute. My last house surgeon, Mr. Hanson, deserves, therefore, every credit for his careful observation of this man's condition and I would commend to you the exercise of the same care in all cases of head injury.

In this connexion may anything be said of our second case and the symptoms which were there present? Increasing unconsciousness and one-sided phenomena are the very things which have been named as likely to be of value in determining whether the brain is being compressed. We knew, however, by the simple observation that there was a large open fracture and the skull was no longer a closed cavity that the symptoms could hardly be due to intracranial pressure. Under these conditions intracranial pressure was well-nigh impossible, depression of bone is *per se* an insufficient cause of it, and had blood been extravasated it must either itself have escaped from the wound or caused cerebral matter to protrude. Things might perhaps be different were blood extravasated in large quantity beneath the tentorium cerebelli. From this point of view, therefore, the contrast of the two cases is worthy of our notice. Had they aught in common? In both of them there was extensive injury to the brain and in both also there was great rise of temperature, an indication perhaps of the severity of the brain lesions and of the degree in which the cerebral control had been withdrawn from the processes of organic life. This also they had in common, that their end was the same. I wish it could have been otherwise, but it is impossible to forget or deny that many cases of head injury are inevitably fatal from the character and severity of the injuries to the brain itself. It is, moreover, because of the multitudinous effects of the

[1] London Hospital Reports, vol. iv., 1867.

injuries to the brain that precise symptoms of this or that lesion are so often masked and obscure and that certain diagnosis is so difficult. Shall the surgeon therefore withhold his aid? Rather let him look the more carefully for any indications to tell him whether relief may perchance be given by exploratory operation. He may fail, but to abandon the patient to his fate may not be the best that he can do. A life may now and then be saved where the actual condition could only thus have been determined and where relief could have been brought in no other way.

ABSTRACT OF

The Hunterian Lectures

ON

THE SURGERY OF THE KIDNEY.

Delivered before the Royal College of Surgeons of England on March 21st, 23rd, and 25th, 1898,

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LECTURE III.[1]

Delivered on March 25th.

FISTULA CAUSED BY RENAL CALCULUS; OBSTRUCTIVE ANURIA DUE TO RENAL CALCULUS; THE TECHNIQUE OF THE EXPLORATION OF THE KIDNEY AND URETER FOR CALCULUS.

MR. PRESIDENT AND GENTLEMEN,—In the second lecture I endeavoured to show (1) that the errors and uncertainties in the diagnosis of renal calculus had in many instances been of distinct advantage because they had led to the exploration of the kidney and this in turn to the discovery and cure of various morbid conditions other than those due to stone; (2) that unsuspected, quiescent, and migratory renal calculi cause very destructive and even fatal consequences and that we ought to revise our practice with regard to the early treatment of renal calculus; and (3) that the low mortality of nephrolithotomy (i.e., the operation for renal calculus in its early stages), and the high mortality of nephrotomy, and the still higher mortality of nephrectomy (i.e., of the operations performed for the advanced disorders due to renal calculus) show the advisability of operating at as early a stage as possible. In further support of this conclusion I may point to the exploratory operations and the operations for moveable kidneys. There are 42 of the former and 57 of the latter without a death due in any way to the operation.

At the Middlesex Hospital, where renal operations are freely undertaken by the members of the surgical staff, a good many persons nevertheless die from the effects of renal calculus who are too ill to be operated upon when admitted. During the years 1885 to 1895 inclusive calculi were found in the kidneys in 45 out of 3331 post-mortem examinations, and hydronephrosis due to calculus impacted in the ureter was found in 4 others. That is, in 1½ per cent. of persons dying from all causes calculi were found in one or both kidneys or ureters. Many of these 45 bodies found their way to the post-mortem room entirely because of calculous disease, and in the rest renal calculi contributed more or less to the fatal result. Amongst the 45 cases there were 10 instances of suppuration in one or both kidneys; 11 cases of perinephric abscess; 4 cases in which calculi were present in both kidneys; and 4 others in which only one kidney could be said to exist, the other having undergone complete atrophy due to obliterated ureter in three of them and cystic degeneration from obstruction in the fourth. Besides these 45 cases there were 63 instances of suppurative nephritis, in most of which both kidneys were affected, and in many of them renal calculus had played a conspicuous part.

FISTULÆ.

In considering the harmful effects of renal calculi it is impossible to leave out of account renal and ureteral fistulæ. It is after nephrectomy for calculous pyonephrosis especially that a fistula due to operation is most likely to occur. It is exceptional for a permanent or long-standing fistula to result from nephrolithotomy, or an operation for movable kidney, or a simple exploration. Fistula is also exceptionally rare after nephrectomy except when perinephritis or perinephric abscess has previously existed. In cases of nephrectomy for calculous disease perinephritis, however, has usually preceded the operation, but in spite of this a fistula followed in only one out of twelve of my surviving nephrectomies for stone, and in that case the fistula was superficial and probably healed shortly after the patient left the hospital, though I have no certain knowledge that it did so. Out of my 33 nephro-lithotomies which survived a superficial sinus occurred in two and a urinary sinus in two. In the two latter very large incisions involving the pelvis of the kidney had to be made for the extraction of stones of great size. After nephrotomy for advanced calculous conditions—e.g., calculous pyonephrosis—fistulæ, either temporary or permanent, occurred in 37·5 per cent. of the cases operated upon. Though in many of these the fistulæ subsequently healed, still the fact that even a temporary fistula followed in so large a proportion of cases affords a further argument in favour of early operation for stone in the kidney. But the fistulæ which occur independently of any operation, which are due, in other words, to long-retained renal calculi, should appeal even more strongly to surgeons as an argument against delaying operative treatment for stone. The persistency of these fistulæ, the recurrence of deep suppuration if the external orifice of the fistula is allowed to close, together with the abiding troubles caused by the continued presence of the stone in the kidney or ureter, will sooner or later induce the patient to demand surgical assistance. Then the patient has to undergo risks and the surgeon to face difficulties which only occur when the perinephric structures are matted and hardened by long-standing inflammation or suppuration and have become so densely adherent to the kidney capsule that it is often no easy matter to find the kidney.

Another and very important fact is that these condensed contracted tissues fill the hilum and surround the whole of the kidney with a fibro-lipomatous mass which shortens and stiffens the pedicle and compresses and destroys the elasticity of the renal vessels and of the ureter. The result of this is that the kidney gets tucked close up against the spinal column and as firmly set in its surroundings as if it were embedded in plaster-of-Paris. If nephrotomy is done under these conditions the renal artery cannot be controlled when the renal parenchyma is incised and the kidney cavity is explored and thus bleeding is apt to be very free. If nephrectomy is performed the risks and difficulties in dealing with the pedicle are enormously increased. When a fistula is in course of formation the perinephric abscess should be opened as soon as possible lest the matter should burrow and discharge in some dangerous direction. It is true the abscess will often make for the loin or groin and open spontaneously on the surface if it be not incised, but it should not be suffered to do so. It is, however, as a rule unsafe to search for and explore the kidney when the tissues surrounding it are in an acutely suppurating condition. The safer course is to defer the exploration of the kidney till after the abscess is healed. This necessitates a lengthy convalescence followed by a fistula and a second operation before the cause of the abscess can be removed. After this second operation, whether it be nephrotomy or nephrectomy, it is not unfrequent for the healing of the wound to be delayed by profuse and prolonged suppuration.

The same drawbacks attend operations for calculous affections of long standing if perinephritis without abscess or fistula has existed. If perinephritis has commenced before nephrotomy is performed neither the extraction of a calculus nor the evacuation of pus from the renal cavity may prevent the spreading of the inflammatory process in the surrounding cellular tissue and the formation of a fistula at a long distance from the kidney.

The closure of the fistula by surgical treatment is tedious and sometimes impossible; and in some cases, after having been successfully treated, and remaining closed for many months or a year or two, it will reopen. Those which do not communicate with the kidney or ureter should be treated on the ordinary principles applicable to all fistulæ; those which do so communicate must be dealt with differently in different cases. If there is a calculus in the kidney it must be removed; if the kidney

[1] Lectures I. and II. were published in THE LANCET of April 16th and 23rd, 1898, respectively.

is quite disorganised nephrectomy is requisite; if the kidney is not disorganised the fistulous track should be cut out and the cut surfaces united by sutures. When no stone is found in the kidney the ureter will probably be the seat of some kind of obstruction. There may be an impacted calculus, a stricture following inflammation or ulceration caused by a calculus which has escaped, or a stricture as the result of contraction after periureteritis, or the duct may be distended in one part and contracted in another by suppurative ureteritis. In most cases a renal or ureteral fistula of calculous origin will, I believe, close permanently after nephrectomy even if a stone be left impacted in the ureter or the ureter be in a state of suppuration at the time of the operation. But should it not do so it may be necessary, as in the case of fistula kept up by tuberculous ureteritis, to perform partial or complete ureterectomy. A urinary fistula due to obstruction in the ureter may in time cease to discharge urine owing to complete atrophy of the kidney. The length of time required for this to be accomplished depends on the degree of obstruction which the fistula, on the one hand, and the ureteral block on the other hand offer to the escape of urine. The more complete the obstruction the more rapid the atrophy and *vice versâ*. In a case of my own the process took seven years.[2] Even after a fistula ceases to be urinous it may persist as a suppurating sinus.

Two objections to early operations for renal calculus are: (1) that calculi will be missed if sought for very early because of their small size; and (2) that very small calculi, if they once enter the ureter, pass through the urinary passages without risk to life. Both these objections are unsound and lead to dangerous delay. In the lists of my operations for calculus it will be found that stones of all sizes, from two grains to ten ounces, have been removed by nephro-lithotomy or nephrotomy; and I do not think one, however small, will be missed because of its small size with the present method of exploring the kidney and ureter. The second objection is more invalid than the first, for there is ample proof that a very minute calculus may provoke the complete destruction of the kidney or become the immediate cause of death from suppression of urine. In some of my cases the most continuous and profuse hæmaturia has been caused by small stones. But—worse than hæmaturia or the destruction of a kidney—calculi weighing less than two grains have caused death. Sir William Roberts, in his admirable chapter on "Obstructive Suppression of Urine," records a case where three little oxalate of lime calculi about the size of hemp seeds, and weighing altogether one and a half grains, were found in the lower part of the ureter, where it passed through the coats of the bladder; this was the cause of the obstruction which resulted in the death of the patient from anuria.

CALCULOUS ANURIA.

Calculous anuria is the gravest and most fatal of the many serious complications of renal lithiasis. Special attention was given to it in 1872 by Sir William Roberts in the second edition of his classical work on "Urinary and Renal Diseases" (p. 23, *et seq.*); and in 1881 an exhaustive thesis on anuria by Pierre Merklen was published in Paris; but neither in this nor in Sir William Roberts's book is the subject of the surgical treatment of calculous anuria considered. In his 1885 edition Sir William Roberts, it is true, says in a footnote: "Lately it has been recommended to open the ureter or pelvis of the kidney above the obstruction and so establish a permanent urinary fistula." But though anti-spasmodics and a variety of mechanical means are recommended and diuretics are rightly condemned, still surgical aid was not seriously discussed by either Sir William Roberts or Merklen. Even at the present time the principle of the operative treatment of calculous suppression of urine is either imperfectly known or improperly appreciated by the profession in this country, because operations are certainly neither sufficiently early nor sufficiently often performed. Worst still, patients are sometimes told that no surgeon in his senses would dream of an operation in their condition. Since 1885 excellent theses on this subject have appeared in France by Legueu, Donnadieu, Glantenay, and Vailhen; and in England, though nothing bearing generally on the surgical treatment of calculous anuria has been published, some brilliantly successful operations by the lumbar route have been reported, notably by Clement Lucas, Ralfe and Godlee, and Kirkham, who were amongst the first English surgeons to operate in these cases.

Etiology.—Calculous anuria occurs when the ureter or renal pelvis of one kidney is occluded by a calculus, the other kidney being absent, atrophied, or diseased. It often affects persons in robust health and may be sudden and complete in its onset. It is then due to the cessation of function of a kidney which has undergone compensatory hypertrophy and which up to the moment of obstruction had been secreting the whole or the chief part of the urine. Occlusion of one ureter never gives rise to fatal anuria if the opposite kidney and ureter are normal.

Anuria may occur at any age and in either sex; it is more frequent in males of thirty-five years and upwards and more especially in elderly men. Instances of children and even infants at the breast dying from convulsions from calculous suppression have been recorded (Rayer). Much importance ought to be attached to the antecedent history of patients who become the subjects of suppression of urine from ureteral obstruction. Commonly they have had several previous attacks of renal colic or of lumbar pains followed by the discharge of gravel or small stones months or even years before the attack in which the anuria begins. But cases have occurred of sudden suppression of urine from obstruction by a calculus without a previous attack of any kind. In such cases both kidneys have been simultaneously obstructed or one kidney has been destroyed by disease of another kind or has been congenitally absent or abnormal. Calculous anuria is often determined or immediately induced by fatigue, a drive or some other shaking movement, such as jumping from an omnibus, violent coughing, rapidly running from the garden to the house on hearing a loud peal of thunder, are some of the causes, in my own cases, which started the descent of the calculi from the kidney into the ureter.

Symptoms.—The symptoms of calculous anuria are not simply those of uræmia. Though in rare instances the onset is insidious pain is almost invariably experienced in the region of the kidney involved last at the outset of the suppression. The pain so started may continue throughout the anuria, but more commonly it is temporary, lasting only a day or two or less, and then subsiding. Less frequently the first symptom is a dull and continuous aching in the lumbar region with or without pains radiating along the course of the ureter. In very exceptional cases the anuria has come on without pain on either side and without the history of previous attacks of renal colic, or the patient has quite forgotten on which side the previous attacks of colic were. These, fortunately rare, are the cases in which the surgeon has no guide as to which kidney to operate upon. With the pain there may be troubles of micturition, such as continual desire to pass urine though not a drop of urine may be in the bladder, or the urine is passed with difficulty and sometimes only in drops or teaspoonfuls; or, on the contrary, there may be polyuria, the urine being pale and of low density and showing evidence of imperfect renal function. In other cases the anuria is intermittent, ceasing, after some hours or a few days, to reappear and become definitely established.

Calculous anuria may be complete or incomplete. In the complete suppression the bladder is quite empty or if not contains but a few teaspoonfuls of bloody urine. In the incomplete form the anuria is intermittent but progressive and interrupted by discharges of urine, insufficient to satisfy the requirements of the system but sufficient to retard the fatal termination of the disease. When the working kidney is hydronephrotic the uræmic condition may be deferred for a longer time than otherwise, even if there are no polyuric intermissions. Calculous anuria once established may last many days without causing any symptoms of uræmia. This is perhaps its most striking feature, which it shares with other forms of obstructive anuria, and with anuria from ligation of the ureters, as distinct from the non-obstructive forms. Even when the suppression is complete seven, eight, or ten days may elapse before the symptoms of uræmia appear and sometimes death occurs without any of the characteristic symptoms of uræmic poisoning arising at all. When the uræmic phenomena supervene after a longer or shorter time death follows rapidly or at any rate within a day or two. In the period of tolerance the patient, though he may not pass a single drop of urine for several days, may yet walk about, eat, and do mental work in all the appearance of good health. This fact must never be forgotten if a serious mistake in diagnosis and prognosis is to be avoided.

[2] See Injuries to the Ureter, Edinburgh Medical Journal, January, 1898

It is, however, all the more likely to escape notice because it is so opposed to the course of suppression due to non-obstructive causes. In certain cases polyuria occurs and retards the appearance of uræmic phenomena as well as the fatal termination, which however at length arrives. In Paget's case polyuria occurred on the thirteenth day and death was deferred till the twenty-second day. In Weber's case a succession of remissions of polyuria took place and the fatal result was not reached till the thirtieth day from the onset of the anuria.

Symptoms when hydronephrosis is associated with anuria.—When the working kidney is hydronephrotic patients with calculous anuria may escape uræmic accidents for a much longer time than others without having polyuric remissions. Thus in a fatal case of a man, aged sixty-four years, recorded by Rayer,[3] with an enormous hydronephrosis, the anuria lasted twenty-five days, with only a slight remission on the tenth day. James Russell published a case of anuria lasting twenty days, which terminated by the discharge of ten litres of urine in twenty-four hours; but a year later the patient died and at the post-mortem examination there was discovered double hydronephrosis with calculi in the pelvis of each kidney. Sir William Roberts cites a case of calculous anuria of ten days' duration, with an increasing tumour in the left iliac fossa; recovery followed a veritable urinary crisis coincident with the disappearance of the tumour.

Prognosis.—The usual termination of calculous anuria when left to itself is death about the tenth or eleventh day. If, however, the suppression is interrupted by intermittent polyuria, whether hydronephrosis exists or not, life may be prolonged by many days. Spontaneous cure sometimes occurs. Legueu states that out of 56 cases of calculous anuria, which neither followed nor were treated by operations, recovery took place in 16—i.e., in 28·5 per cent. In 1 the secretion recommenced on the third day; in 10 between the fifth and tenth days; and in the rest on the thirteenth, fourteenth, fifteenth, twentieth, and in two instances on even a still later day. Of the 40 deaths 23 occurred between the fifth and fifteenth days, one on the fourth day, and the rest on and after the sixteenth day. Of the 48 cases not operated upon 38 died and 10 recovered; of the 49 cases operated upon 24 died and 25 recovered. Thus there is a percentage of recoveries in cases operated upon of 51 as against 20·8 in cases not operated upon.

The pathological anatomy of calculous anuria may be summed up in the statement that the ureter or renal pelvis of one side has become recently occluded, whilst the kidney of the other side is either congenitally absent or functionally suppressed, or structurally destroyed by calculus or some other form of renal disease. Rarely does simultaneous obstruction of both ureters by calculi occur, although this has been known to happen.

Diagnosis.—The occurrence of former attacks of renal colic in a gouty person, followed by the sudden onset of pain on one side, and this accompanied or immediately followed by anuria, points at once to obstruction of a calculous nature. The diagnosis will be further strengthened if a swelling or distinct tenderness on pressure is present in the renal region or in the course of the ureter of the side recently become the seat of pain. But in some cases there is not a distinct history of previous attacks of renal colic and yet one kidney may have become silently but entirely obstructed or destroyed by calculi, as shown in Lecture II. In other cases there have been previous attacks of renal colic or pain, but the patient has forgotten on which side the pain was felt. If under these circumstances anuria sets in it may be difficult or impossible to diagnose on which side the recent obstruction exists. The surgeon thus in doubt must seek information by the examination of the patient in the following manner:—1. The course of the ureter should be palpated, if possible, through the abdominal parietes. This is often an impossibility owing to the stoutness of the patient. The ureter in which a calculus is impacted is likely to be inflamed and painful as well as tender; even when a calculus has passed along the ureter it is likely to be followed by pain, lasting several days after its escape. 2. Rectal and vaginal examination should be made. In the male digital examination per rectum has led to the discovery of a calculus impacted in the lower part of the ureter, as in Rawdon's and Cecil's cases; in the female the same discovery has been made by vaginal examination by Emmet and by myself, and I have also detected the presence of a stone by vesical examination after dilating the female urethra. 3. Catheterisation of the ureters, though easy of application in the female, does not afford satisfactory assistance in these cases, whether done across the bladder through the dilated ureter, or by vaginal cystotomy as practised by Bozemann and Emmet, or by the aid of suprapubic cystotomy. The cystoscope in the cases of anuria is quite unnecessary and can give no information which is not more fully ascertained by rectal or vaginal examination and a sound in the bladder.

If there be a calculus in the terminal part of the ureter it will almost certainly, if of any size, be detected by either rectal or vaginal examination and can be extracted by one of the operations to be mentioned later. But if by these modes of examination nothing is detected in the inferior extremity of the ureter we ought without delay to explore one or both of the kidneys through the loin and to select first the side on which pain or tenderness or swelling or a hard contracted condition of the abdominal walls exists or has recently existed. Through such an incision the kidney and adjacent part of the ureter can be seen and felt and the rest of the ureter catheterised, and if a stone be found it will be possible to remove it, and if no stone be found then by establishing a renal fistula relief will be given to the congested state of the kidney and a condition will thereby be brought about favourable to the resumption of the secretion of urine.

Calculous anuria and uræmia have to be diagnosed from non-obstructive forms of anuria and from other forms of obstructive disease. A case of anuria from double polycystic disease, in which the symptoms and history were those of calculous obstruction, has been under my care lately. Cancer of the uterus after calculus is the most frequent cause of obstructive anuria. Primary cancer of the bladder may obstruct the ureters. Many cases after operations for myoma of the uterus succumb to anuria with dilatation of the ureters and renal pelves. Calculous anuria will be diagnosed from traumatic anuria, in which the vessels of both kidneys are thrombosed by the symptoms following an injury, and from the anuria following catheterisation and other operations on the lower urinary passages by the absence of the general malaise at the onset and of the rigors, high temperature, and intense prostration which accompany urinary fever.

Treatment.—The treatment of anuria up to fifteen years ago was entirely medical. Death was the common result. No wonder; for what else could be expected from purgatives and diuretics, from diaphoretics and anti-spasmodics, from baths, forced exercise, and massage? Drugs, such as digitalis and pilocarpine and others, which induce the elimination of a considerable quantity of water from the system, remove only a small quantity of urea with the water and thus leave the blood proportionately more highly charged with urea. For this reason such supposed remedies ought to be ordered with extreme precaution in obstructive anuria. The surgical treatment of calculous anuria is a question of the day and one of the greatest importance. Formerly no one dared to do more than suggest operation, though Rayer and Gigon in 1856 had strongly recommended it. Nephrotomy should be performed in the gravest cases to prevent death from uræmia; in the slighter and intermittent cases it should be performed to extract a stone which may at any time produce complete persistent anuria. When the calculus is in the lower portion of the ureter or within, or close to, the vesical orifice the advisability of adopting one of the special methods for reaching the ureter in these parts will have to be considered, but in many cases the state of the patient will make it necessary to postpone this for a time at least. Should the obstruction not be removed at the primary operation a lumbar renal fistula should be established and ureterotomy may be subsequently successful, or the stone may be naturally expelled, and thus the normal channel will be opened up and the fistula allowed to close.

Opinions have hitherto differed as to the precise time when the surgeon should interfere. To be successful it is certain that the operation should be done early and before the uræmic stage is reached. But since this stage is generally delayed till after the sixth day some writers have advocated the fifth or sixth day as the period of surgical operation. In Demon's case the intervention was made on the eleventh day and in Chevalier's on the fourteenth with complete success; but on the other hand operations on the third day have been unsuccessful in restoring the secretory function. Moreover, eclampsia necessitating immediate operation may occur as early as the third or fourth day of

[3] Maladies des Reins, tome iii., p. 490.

the anuria, as in Vailhen's case. Sudden death may occur early in an anuric person who seems to be in fair general health. My opinion is that an operation ought to be performed as soon as the anuria is established and the diagnosis is satisfactorily made. We should operate on the side last affected when the indication on this point is clear. It is not the kidney which has longest suffered or which has yielded most calculi which ought to be incised. The contrary ought to be the rule, because the more the kidney is affected the more extreme its degeneration, the less the secretion which it will yield, and consequently the less the benefit from nephrotomy. In the absence of exact history drawn from the patient himself it is necessary to try to ascertain by careful examination of the abdomen which kidney to explore. When there is no enlargement of the kidney and no pain or tenderness there may yet be a considerable degree of hardening from contraction of the abdominal muscles over the kidney which is last involved. In most cases it will be best to explore the kidney first, but in certain exceptional instances, as when the stone can be felt per rectum or per vaginam, or evidence clearly points to the side and precise spot at which it is impacted, ureterotomy should be done. For this nothing less than actually feeling the stone through the abdominal parietes (a most unlikely thing in persons suffering from calculous anuria) ought to satisfy. The localisation of stone, as to whether it be in the kidney or ureter, is very uncertain; most frequently, when impacted in the ureter, the symptoms it causes are referred to the corresponding kidney; but occasionally the reverse obtains and a stone in the renal pelvis gives rise to fixed abiding pain and acute tenderness at one particular spot in the course of the ureter.

The nature of the operation performed in the 49 cases was as follows:—1. Operation stated as nephrotomy or (in a few cases) merely exploration of kidney, in 36 cases. In one of them the operation was performed by the thermo-cautery. 2. Incision of the renal pelvis, 5 cases. One was done by thermo-cautery. 3. Incision of the ureter, 7 cases. One was performed through the rectum. In one additional case an attempt was made to remove an obstruction from the lower end of the ureter by means of the finger in the bladder.

THE TECHNIQUE OF THE OPERATION FOR EXPLORING THE KIDNEY AND URETER.

The method I adopt for exploring the kidney and ureter for stone is the following. The incision I have from the first always employed is a very oblique lumbar one commencing an inch above and in front of the anterior superior iliac spine and continued outwards and backwards to the outer edge of the erector spinæ muscle, about a finger's breadth below the last rib. The length of the incision varies with the figure and degree of stoutness of the individual. More frequently than not it is unnecessary to begin so far forward and sometimes it is advantageous to continue the skin incision backwards a little over the erector spinæ muscle. The direction of the lumbar incision is, however, always in the line between the points mentioned. When more room is required a short vertical or slightly curved incision is made upwards from the oblique wound extending over the back of the twelfth rib. This greatly facilitates deep manipulation and is a step towards clearing the last rib in the event of the excision of that bone being requisite. Manipulation is also sometimes facilitated by snicking the outer edge of the quadratus lumborum. When more room in front is required either for freeing or inspecting the kidney, controlling bleeding in the deep part of the wound, or for tracing the ureter, the incision should be carried in a curvilinear way toward Poupart's ligament and then forward parallel to and an inch above that ligament as far as the internal abdominal ring or further. Bleeding points should be controlled as they occur by pressure forceps, and if the last dorsal or the ilio-hypogastric nerve is in the way it is best to excise an inch or more of it. When freed of its connexions anteriorly, posteriorly, and at both ends the kidney should be brought bodily on to the surface of the loin. This in a large number of persons can be done without difficulty and without causing tension of the renal pedicle, but in others with thick-set trunks and very fat parietes it is not possible to bring the kidney quite out of the body even when great traction is made upon the pedicle. Forcible pulling upon the pedicle, however, must be avoided. When owing to these conditions the kidney cannot be brought out of the wound the wound should be made amply large enough to allow the surgeon to see clearly the kidney which he is about to incise. Unless this be done there is always the risk of wounding the branch of the renal artery or vein which runs over the back of the renal pelvis before entering the parenchyma on the posterior surface of the organ. Moreover, small branches of the renal artery anastomising with the lumbar vessels may be wounded and should be seen to be ligatured. If no calculus is felt an incision is next made into the kidney along its convex border whilst the finger and thumb of the left hand steady the kidney and compress the pedicle. This compression of the pedicle serves a double purpose: (1) it limits hæmorrhage; and (2) it prevents a small calculus which might drop out of one of the calyces from falling into the ureter. Through the wound in the kidney the right index finger is introduced and a careful detailed manipulation is made of every part of the interior of the organ. Needling the kidney for diagnostic purposes is most unreliable and should be abandoned. Whether or not a calculus be found in the kidney the ureter should always be catheterised from end to end to test if its lumen is quite free. If this is not done a small calculus may be missed.

If the ureteral catheter can be passed readily through the renal cavity by way of the incision in the convex border of the kidney this should be done, but it is often impossible or troublesome to hit off the orifice of the ureter in this way. If so, the back of the infundibulum should be cleared and a minute longitudinal incision should be made into it with the point of a narrow sharp scalpel or sharp-pointed scissors, and through this incision the catheter should be conducted. In doing this care must be used not to mistake the renal vein or a branch of the vein for the renal pelvis. Should such an error be made bleeding will be readily controlled by pinching up the edges of the tiny wound and applying a circular ligature. When any doubt arises the vein will be distinguished by watching for the return of blood after compressing it. There is often quite a plexus of fine blood-vessels on the surface of the infundibulum and ureteral wall which must be avoided if possible. If there be a stone in the ureter the catheter will be obstructed at the point of impaction. In the male, whether this point be in the abdominal or the pelvic course of the ureter, the calculus can be reached and removed retroperitoneally by prolonging the anterior or lower end of the incision in the direction mentioned before.

In the female the same procedure answers for the abdominal and first portion of the pelvic course of the ureter, but for the removal of a calculus from the ureter within the broad ligament, especially near the uterus or vagina, the vaginal or sacral route is the best. If situated quite at the vesical orifice of the ureter it can be extracted through the bladder after dilating the urethra and, if needful, slightly incising the ureteral orifice. No attempt should be made to extract a calculus through the bladder unless it be situated quite at the internal opening. A calculus, if it is of fair size, may be felt through the bladder when it is in the ureter just above the point where the duct enters the vesical wall. When here it cannot be so removed without exposing the patient to the danger of an intra-peritoneal urinary fistula. In one of the recorded cases of uretero-lithotomy this accident happened and the patient died. If the ureter is dilated above the stone and the stone can be readily pushed back into the dilated portion this should be done, whether the point of impaction is above or below the brim of the pelvis. The incision in the dilated tube may then be closed by one or two Lembert sutures. Care should be taken to provide drainage for any urine which may extravasate through the ureteral wound, otherwise serious mischief in the pelvic cellular tissue may occur after the too early closure of the external wound. In operating upon the sound kidney I do not hesitate to cut directly down upon a calculus wherever it may present; still less need one do so in a kidney the cavity of which is pouched and the parenchyma atrophied. When so made the incision should preferably radiate from the hilum, but when the parenchyma is very thin and a large branched calculus or several calculi are present the incision may be made in any direction which gives the greatest facility for extracting the stones.

In calculous pyonephrosis I have removed seven stones through as many separate incisions in the thin parenchyma. As long ago as 1829 Gerdy[4] had advised that the convex

[4] P. N. Gerdy: Anatomie des Formes Extérieures du Corps Humain, Paris, 1829. See note on p. 153.

border of the kidney should be selected for incision in nephrotomy. The advantages depending on the anatomical arrangement of the blood-vessels within the kidney of an incision along this border are considerable. Moreover, through no other single incision can a complete examination of the cavity and substance of the kidney be so conveniently made.

After removing a calculus from the renal pelvis, if the convex border has not been incised the interior of the kidney should be palpated either through the opening or if this be too small to admit the finger then by invaginating the infundibulum. When the renal cavity is sacculated and suppurating it should be freely irrigated with a hot weak solution of Condy's fluid, perchloride, or carbolic acid. In a few instances the calyces have been found packed with a putty-like mass of muco-pus, which was thoroughly cleared out with the finger and little swabs of cotton-wool. In every case a drainage-tube is inserted into the wound around the kidney, but not into the kidney cavity itself. I prefer a tube to iodoform gauze, which, by sucking up and retaining the serum and blood, keeps the surfaces of the wound apart and prevents immediate healing. In closing the parietal wound I transfix the whole of the layers, skin, muscles, and fasciæ, with the same sutures carried by means of Hagedorn's large curved needles. I have for some considerable time abandoned the use of buried sutures for the separate layers of muscles and fasciæ. The length of time required for convalescence of course varies. In cases of simple nephrolithotomy patients are often able to sit up on the eleventh or twelfth day with their wounds soundly healed, and many have returned to their homes between the second and third weeks after the operation. Nephrectomy is frequently as rapidly followed by complete recovery. When the kidney and the perinephric tissues are much disorganised healing is apt to take place for the most part by granulations and then four or five weeks are required.

THE MANAGEMENT OF PATIENTS BEFORE AND AFTER LAPAROTOMY.[1]

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IN the early days of the decade now drawing to a close it was generally considered to be a fact that operations within the abdominal cavity could only be performed with a reasonable degree of safety to the patient when undertaken in expensively constructed special rooms attached either to public or private hospitals. But as time has gone on and our knowledge of bacteriology has increased antiseptic surgery has been gradually replaced by aseptic work, and we have found, especially those of us whose fortune it has been to perform operations of the class under consideration in ordinary dwellings, that although the personal effort and responsibility are increased, abdominal operations can be performed with as little, if not less, danger to life in a properly prepared room in the patient's dwelling, as in the best equipped modern hospital. This, coupled with the fact that abdominal wounds are more frequently closed without drainage and therefore allowed to heal under one dressing than was formerly the case, seems to make it evident that the time is not far distant, if indeed it has not already arrived, when patients suffering from abdominal disorders will ordinarily prefer to be operated upon in their own homes rather than to go among strangers in a strange land at this critical time. Hence it will come to pass that the general practitioner in the near future will more often have an important part to play in the management of patients, both before and after the performance of laparotomy, than has hitherto been customary. On this account chiefly the discussion of this important subject has seemed timely, for it is my belief, founded on a considerable experience, that the patient's welfare depends not only upon the technique of the operation itself being properly carried out but also upon the successful management of many so-called minor, and therefore neglected, details both before and after the operation.

[1] A paper read before the Hartford Medical Society and the New York Medico-Surgical Society at their January, 1898, meetings.

Years ago I, then under the pupilage of that great surgeon Professor James R. Wood, learned that the most successful surgeon was he who could best carry out not only the major but the minor details of his work; and this must be my excuse, if one is needed, for the minuteness with which the minor points of routine work are about to be gone into.

Preparation of the patient.—When the condition for which the operation is to be undertaken is chronic, and all the time desired can be had for the preparation of the patient for the ordeal which he is to undergo, much can be done which will not only diminish the risk about to be incurred by him but which will ultimately hasten convalescence. In such a case it is for the patient's welfare that the hospital where the operation is to be performed should be reached, or the trained nurse employed if the patient is to remain at home, at least one week prior to the date fixed upon for the operation. This allows the individual to become accustomed to the attendants or the environment, which is of undoubted importance, as it tends to lessen the dread and nervous tension, both of which are great in such a crisis even under the best of circumstances. During this week the sufferer should be encouraged to spend the greater part of the time in bed for the purpose of getting thoroughly rested, as patients too often come under operation physically exhausted. During this period massage may be employed to advantage in lieu of physical exertion as it improves the circulation, promotes digestion and the general bodily welfare. As far as is compatible with a healthy mental condition, visitors and friends should be excluded. A daily record of the patient's bodily temperature, pulse, and respirations should be kept. An examination of the heart and lungs and a final analysis of the urine should be made at this time. As it is of great importance that the intestinal canal should be thoroughly collapsed at the time of operation, careful attention should be paid to unloading and emptying the bowels as well as to getting the digestive organs in good working order. This is best accomplished by giving early in the week several small doses of calomel and soda daily for three days. There are to be followed each morning by a saline, and this, in turn, on each of three succeeding mornings by a large enema, unless contra-indicated (3 to 4 quarts of saline solution, 1 drachm to the quart). The rectum should be finally washed out with a pint of the same solution six hours before the performance of the operation. The large enema just alluded to is best given with the patient lying on the left side, a fountain syringe being used for this purpose the reservoir of which should not be elevated more than 3 ft. above the patient's body. A bulb syringe should not be used for this purpose, for in the first place it injects the fluid irregularly and with too much force and consequently only a small quantity can be employed; in the second place it is apt, if carelessly used, to permit the entrance of air into the bowel. An extreme instance of this sort came under my observation some years since. A nurse having been directed to give a patient an enema undertook to force fluid contained in a pitcher into the gut by means of a bulb syringe. She worked away vigorously for a time, directing all her attention to the patient, who complained bitterly, but she failed to notice until it was too late that the distal extremity of the tube had escaped from the liquid and the patient's abdomen was greatly over-distended. The family physician was hastily summoned and with some difficulty relieved the patient from a very severe attack of wind colic. The water for the enema should have a temperature of 100° F., and should be introduced into the canal slowly, being frequently intermitted as the patient complains of a feeling of distension or of intestinal colic. Both of these sensations pass off with the cessation of the flow and by persevering in this way three or four quarts of saline solution can usually be introduced into the colon in the course of half an hour with but slight discomfort to the patient. The patient should be encouraged to retain the fluid for another fifteen minutes before it is allowed to escape. The administration of these enemata should be supervised by the physician, as the nurse seldom knows how to accomplish the introduction of the desired quantity of fluid into the intestinal tract, or if she has the knowledge and experience she has not sufficient authority over the patient to effect the desired result. I have often been told by nurses entrusted with this duty that they have given the enema of four quarts not as ordered but in divided doses, thinking probably that as "twice two equals four" they had performed their duty in a satisfactory manner. It is this misunderstanding that so often causes the

patient's bowels to act on the operating table, not only to the great discomfort of the surgeon and his assistants, but frequently, when the operation is about the vagina, endangering the patient's life.

The course indicated for cleaning and emptying the intestinal tract has proved in my experience to be a much more satisfactory one than that generally employed—i.e., the administration of a single large dose of calomel the evening previous to the day set for the operation and followed in the morning by a saline and a small enema. The latter method usually fails to properly empty the colon, but succeeds, as has been already said, in causing several movements after the patient has been placed under the anæsthetic and on the operating-table.

The patient's diet during this week of preparation should be of an easily digestible nature, and he should be encouraged to partake freely of fluids for the purpose of restoring the normal quantity of fluid in the body. If needed cardiac stimulants should also be given. Hot baths (110°) of ten minutes' duration should be given daily, not only for cleansing purposes but to promote the secretions of the skin and kidneys. Special attention should be paid to the navel and pubic region, which should, if practicable, be shaved on the day previous to that fixed upon for the operation, otherwise it must be done after the patient has been placed under the anæsthetic. If the individual is a female the time of the operation should be, when possible, arranged for a date a few days after the cessation of the menstrual flow and a vaginal douche should be given consisting of boric acid and followed by one of formalin (½ per cent.) or of bichloride, 1 to 4000. It is well during these days preceding the operation to give the patient a mild hypnotic every other night. I have found a combination of sulfonal and chloralamid to answer the purpose. This hypnotic should be always given on the last night of the period under consideration.

The patient's skin covering the abdomen should be prepared for the surgeon by thoroughly cleansing it, applying a soap poultice for two hours over the site of the proposed incision and then replacing it by a compress moistened in weak bichloride solution. This compress is allowed to remain until the patient is placed on the operating table. These final preparations can be made the evening before if the operation is to be performed at an early hour in the morning or in the morning if an afternoon hour has been decided upon. It is wise to fix upon as early an hour of the day as practicable, as the patient in this case has less time in which to become exhausted from want of food or restless or nervous from the dread of what is to come. It is of great importance that once the hour has been determined there should be no postponement, as I have seen patients almost collapse under the extra nervous strain entailed by half an hour's delay.

If the operation is to be performed at an early morning hour—i.e., 8 A.M.—the patient should be given a peptonised milk punch at 11 o'clock the previous evening, and if he awakens at 5 or 6 A.M. 1 oz. of liquid beef peptonoids may be given, but nothing more. It has been my experience that a small amount (1 oz.) of stimulating and concentrated food administered about two hours prior to the taking of the anæsthetic diminishes the liability to heart failure and also lessens the nausea and vomiting which frequently follow the return to consciousness. If an afternoon hour has been decided upon another peptonised milk punch may be given the patient when he awakes and 1 oz. of liquid beef peptonoids at 11 A.M. If the case is of an acute character and an immediate operation is demanded little more can be done than to cleanse the skin in the manner already described and douching out the vagina if the patient is a female. A stimulant should be administered if the pulse is feeble or if the patient is suffering from collapse due to intestinal perforation. In this condition if the patient does not respond to the stimulants the operation should not be performed as it will prove of no avail. If, on the other hand, the patient rallies the operation should be done with as little delay as is practicable, but even in those cases it should not be forgotten, as Dr. Abbé has pointed out, that if we would have our work come to a successful issue we must have good light, good assistants, and proper facilities for intra-abdominal irrigation.

If the operation is to be performed in a private residence, a room with a north light should be preferably selected. Its furniture should be removed at least twenty-four hours before the room is to be used. After it has been thoroughly cleansed, the windows should be left wide open for two or three hours, then closed, and the woodwork wiped over with bichloride solution, 1 to 1000. The floor should be liberally sprinkled with a similar solution. A table, 20 in. wide by 30 in. high, and varying in length according to circumstances, will be needed, as well as several smaller tables or stands, a few wooden-bottomed chairs, several large pitchers, four or five basins, several meat-platters, and a receptacle (a fish-kettle) for sterilising the surgeon's instruments. All these articles should be cleaned and washed over with bichloride solution before being placed in the operating-room. The room should be closed after all the articles have been placed in it, and should remain so until needed. A dozen towels, sterilised by boiling or by steaming in a steriliser, and several gallons of cold and hot water, sterilised by boiling, complete the arrangements to be made before the arrival of the surgeon, who usually provides instruments, ligatures, suture materials, and dressings. For emergency operations it is best to make no attempt to clean the room, but the floor should be covered with a sheet wet with bichloride solution. This avoids vitiating the air of the room with dust—a thing greatly dreaded by the surgeon.

The patient should be so clad for the operation as to reduce to a minimum the bodily exposure. The clothing should consist of a warm undershirt, drawers and stockings, the two last-named often being made in one piece. The anæsthetic should be administered to the patient before he is brought into the operating-room. If the anæsthetic to be employed is ether it is advisable to administer hypodermically ¼ gr. of morphia and $\frac{1}{100}$ gr. of atropia, half an hour before the induction of the narcosis, as this tends to diminish bronchial secretion and materially lessens the amount of ether to be given. If, for the administration of the ether, a closed inhaler is used of the Clover type, and the gauze contents are saturated with the fluid at the start, and the mouthpiece is rapidly brought down over the patient's nose and chin, so as to exclude the air, the anæsthetic state will be quickly induced, and there will seldom be a stage of excitement. It is a fact that patients can be rendered unconscious and kept in this condition for an hour with only 4 oz. of ether, and for the second hour with only 2 oz. additional. After the patient has been placed under the influence of the anæsthetic agent and put upon the operating table, on which sterilised blankets have been placed in such a manner as to admit of their being folded over the patient's chest and lower limbs, leaving only the abdomen exposed, the bichloride compress previously alluded to is removed and the skin is finally scrubbed with hot water and tincture of green soap. The pubic region should receive special attention. This scrubbing is to be followed by irrigation with sterilised water, ether, and alcohol. If the patient is a female it should be the rule to cleanse the vagina in the same manner, but instead of scrubbing the tissues with a brush it is better to use a piece of gauze held in the jaws of a sponge-holder as the brush tends to excoriate the tissues and thereby increases the danger of septic infection.

While the technique of abdominal operations is not within the scope of this paper I ask leave to say that for a long time past I have been in the habit of entering the abdominal cavity by means of an incision through either the left or right rectus muscle as the case required, the muscle being simply split and not divided. This incision heals readily and there appears to be little danger of ventral hernia provided the edges of the fascia are approximated. The appendix can be readily reached and removed through the incision over the right rectus muscle. Not long since I removed the greater portion of a long and adherent appendix through an incision made over the left rectus muscle for the purpose of removing the left ovary. Of course this last incision is not recommended for the removal of the appendix. Before closing the wound in the abdominal wall it has been my custom in most instances, notably in those cases where the formation of adhesions between the viscera was undesirable, to leave behind in the general cavity a considerable quantity of so-called normal salt solution (½ a drachm to the pint) at a temperature of 110°, after irrigating the cavity freely with the same solution. This not only, in my opinion, tends to prevent the formation of intestinal adhesions, but also serves to stimulate the patient, who generally leaves the table in good condition and with a warm, moist skin. The edges of the wound are approximated by means of a single row of silkworm gut sutures which pass through all the

different layers of tissues. I have gradually learned that these deep sutures should be placed at least 1 in. apart and loosely tied so as to allow for the swelling of the parts, which is considerable and varies in amount with the thickness of the wall. The interference with the circulation by means of these deep sutures when placed too closely together and tied so as to approximate the edges of the skin accurately is, I believe, a more frequent cause of stitch abscess than is infection. After the deep sutures have been tied, as indicated, the edges of the skin should be accurately adjusted by means of a buried running suture of silkworm gut or by a continuous suture of catgut. While the operation is progressing the anæsthetiser, who should be an experienced physician, should watch the patient constantly and pay no attention to the operator. As soon as the reflexes have disappeared he should raise the inhaler from the patient's face to replace it as soon as they return. In this way the patient inhales the minimum amount of ether and carbonic acid gas. As soon as the pulse increases twenty or thirty beats a minute a stimulating hypodermic injection of strychnia should be administered and repeated as needed from time to time until $\frac{1}{15}$ gr. has been given. To this may be added $\frac{1}{100}$ gr. of nitroglycerine every fifteen minutes. If in spite of these stimulating injections the pulse exceeds 150 beats per minute it is well to open either the right or left median cephalic vein and introduce into the circulation one to two pints of saline solution at 100°. This solution should be made ready in advance. For giving such an injection a simple apparatus, consisting of a rubber tube with a funnel at one end and a blunt hollow needle at the other, is all that is requisite.

After-treatment.—The operation having been completed, the wound dusted over with acetanilide powder, and the usual dressings applied, the patient should be returned to his bed, being placed directly within the folds of a blanket and surrounded, if necessary, with hot water bags or bottles. Care should be taken lest they be overheated and so blister the still partially unconscious patient. This warning is given because it is not at all uncommon, when the matter is left entirely to the nurse, for the patient to receive one or more severe burns from this cause. When a quantity of hot saline solution, already alluded to, is allowed to remain in the abdominal cavity, the patient generally leaves the operating table in good condition and with a warm, moist skin. If the patient's pulse is weak and rapid it is wise to raise the foot of the bed somewhat and soon after consciousness has been fully regained to administer $\frac{1}{4}$ gr. of morphia and $\frac{1}{100}$ gr. of atropia to quiet the patient and combat shock. There is, however, usually very little shock unless there has been much blood lost during the operation. After this one dose the use of morphia should be discontinued, as it deranges the digestive system and obscures the various symptoms. It is not necessary to keep the patient in one position during the first three or four days. In a recent hospital case this was well demonstrated by the fact that although the patient fell out of bed the night following the operation convalescence was smooth and uneventful.

During the first twelve or eighteen hours following the operation the patient should not be allowed anything by the mouth except a little warm water from time to time. If ether has been administered intelligently in small quantities and in the manner previously described there will generally be little or no vomiting or nausea and when it does occur it can be overcome by the external application of chloroform to the epigastrium. If the demand for fluids is urgent, which is seldom the case where the saline solution is left in the general cavity, it is due to gastric irritation and can usually be successfully combated by two or three large doses of subnitrate of bismuth. The patient should during these early hours of convalescence be stimulated and nourished, if necessary, by means of enemata, unless the operation has involved the breaking up of extensive and firm adhesions in the pelvic cavity, in which case a weak place in the bowel may be ruptured and the enema and fæcal contents of the lower bowel be forced into the general peritoneal cavity. This accident has occurred twice in the past two years in my practice. After the passing of the first twelve or eighteen hours, if the patient is not suffering from nausea or vomiting and the pulse-rate is much the same as before the operation, a drachm of liquid beef peptonoids or of some other similar preparation may be given and repeated, if well borne, every twenty minutes until four doses have been taken, when, after an interval of two hours, a small quantity of equal parts of milk and lime-water or of peptonised milk may be given from time to time until 4 oz. have been taken. After this there should be an interval of two hours, and then $\frac{1}{2}$ oz. of liquid beef peptonoids may be administered. After another interval of two hours 4 oz. of peptonised milk may again be given. The quantity of milk should be gradually increased and the interval lengthened until the patient takes 8 oz., or its equivalent, every three hours, but once during the twenty-four hours the interval should be lengthened to six hours. The general tendency is to give too small quantities of nourishment at too frequent intervals, which fatigues the stomach and is apt to cause irritability of this organ and to engender a disgust for food. During the interval, if the patient desires more liquid, egg-albumen and water (the whites of three eggs to a pint of water to which a little salt has been added) may be allowed him frequently. During the first forty-eight hours following the operation, if the patient is disturbed by reason of intestinal gas, great relief is often afforded by the introduction through the sphincter ani of a short rectal tube, or even the nozzle of a fountain syringe. Some time since I performed a laparotomy upon an out-of-town patient and left her the following morning in the care of her physician, whose experience in abdominal cases after operation was limited. A few hours later the woman began to complain of severe abdominal pains and distension. The medical man was summoned and after examination he diagnosed the condition as symptomatic of peritonitis. Fortunately, instead of giving morphia, a brother physician who had had more experience in the care of such cases was called in. After examining the patient the latter inserted the rectal tube of a fountain syringe into the bowel and was rewarded by a rush of escaping gas. The abdominal distension and pain quickly disappeared, and in thirty minutes from the time the tube was introduced the patient was sleeping quietly. If this simple procedure proves inadequate friction may be applied over and along the colon, as has been recently mentioned by Dr. A. E. Gallant. This complication, however, will seldom arise if during the week preceding the operation proper attention is paid to clearing out the intestinal contents. If the patient continues to do well and retains nourishment and the intestinal canal has been well emptied no cathartic need be administered until the third or fourth day when $\frac{1}{10}$ gr. of calomel and 1 gr. of soda should be given every half hour for five hours. If the bowels do not act within three hours after all the calomel has been taken a seidlitz powder should be administered and repeated after another interval of three hours. After the bowels have moved, if all has gone well, the pulse-rate will be much as it was prior to the operation, and by the evening of the fourth day the body temperature should be normal, in which case the patient may be rapidly allowed to resume ordinary diet.

The dressings should be removed on the fifth day, and if the sutures are beginning to cut the tissues they should be removed and the wound supported by strips of adhesive plaster; otherwise they should be allowed to remain a few days longer. The dressings having been removed the wound should be washed with hydrozone and bichloride solution and freshly dusted with acetanilide powder before they are replaced. Before the sutures are removed the wound and its surroundings should be thoroughly cleansed. A suture is then picked up at one side by means of a pair of thumb forceps and the skin at the angle is depressed by the flat surface of a pair of scissors, the blades of which straddle the strand of gut, which is then cut through. The object of this manœuvre is to cut the portion of suture which has been buried in the tissues and which is therefore clean, so that in dragging the gut through the deeper tissues and the peritoneal cavity the danger of infection will be reduced to a minimum. The patient should remain in bed for about eighteen days, and may then be allowed to sit up and soon thereafter to walk about and resume his ordinary occupation.

Complications.—The complications which may be encountered during the period of convalescence and which change this ordinarily peaceful period into a more or less stormy and anxious one for both the patient and the physician, taxing the latter's ability to the utmost, occur in the following order: concealed hæmorrhage, peritonitis, intestinal paresis, intestinal obstruction and stitch abscesses.

The occurrence of concealed hæmorrhage, which fortunately at present seldom happens, especially when the vessels are tied with catgut taken directly from alcohol in which it is preserved, manifests itself during the first

twenty-four hours by a rapidly rising pulse, decreased in volume, and accompanied by a falling body temperature, dilatation of the pupils, and a clammy perspiration. When this condition is followed by a rapid rise of body temperature to 103° F. or over, dissolution is imminent. As soon as this complication is recognised an intravenous injection of saline solution should be given and the patient should be stimulated by hypodermic injections of ether, whisky, strychnia, or digitalis, and if there is a reasonable response the abdomen should be at once opened and the bleeding point searched for and secured; otherwise the operation would prove useless and would only be an ante-mortem instead of a post-mortem examination. The decision as to the occurrence of hæmorrhage and the necessity of reopening the peritoneal cavity should be made with great deliberation, as the unnecessary performance of this operation may seriously endanger the life of the patient.

The onset of peritonitis is indicated by a gradual but persistent rise of pulse beginning on the second or third day, intestinal distension, and rigidity of the abdominal muscles, whether accompanied by elevation of body temperature or not. If the pulse-rate rises and remains in spite of our efforts above 120 per minute the outlook is generally unfavourable. As soon as this tendency of the pulse to increase in frequency after the first day is recognised an effort should be made to move the bowels by the administration of calomel followed by a saline. If this does not act in a reasonable time another dose of calomel should be given, followed after an interval of several hours by another saline. A stimulating enema of 7 oz. of a saturated solution of sulphate of magnesia and one ounce of glycerine is often very effective. If the bowels act freely the patient is generally safe, but if the symptoms persist instead of subsiding the stitches should be removed from the abdominal wound, the cavity freely irrigated and its contents cleansed in the manner recommended by Finney.

The advent of intestinal paresis is marked on the second or third day by distension of the abdomen and the occurrence of more or less persistent vomiting, the contents of the stomach being ejected without nausea and the fluid being at first of a yellowish and later of a brownish colour, but not having a fæcal odour. As the colour of this fluid darkens the prognosis becomes less and less favourable. It is well to bear in mind that vomiting resulting from the administration of the anæsthetic subsides usually during the first twenty-four hours, but that it may follow the administration of morphia. When the diagnosis of intestinal paresis has been made the stomach should be washed out and salines given at frequent intervals until the bowels act, even if the saline be partially ejected by the patient. My efforts have been crowned with success in more than one instance by the persistent administration of salines after the patient's condition had seemed hopeless. The stimulating enema already alluded to should be given and friction should be applied over the colon. If the bowels act the patient usually has no further trouble.

Intestinal obstruction, which fortunately has seldom or never occurred in those cases in which the writer has left saline solution in the general cavity, is differentiated from intestinal paresis by the pain over the site of the obstruction and more persistent vomiting accompanied by nausea, the vomited matter having sooner or later a fæcal odour. This condition should be treated as soon as recognised by re-opening the abdominal cavity and finding and freeing the constricted portion of gut.

Stitch abscesses usually announce themselves by the occurrence of a rise of body temperature towards the close of the fourth or fifth day and should be treated by the application of hydrozone and the removal of the sutures. The opening in the skin should, if necessary, be enlarged to allow of the free evacuation of the pus.

While the various symptoms described have individually to be considered and their meaning weighed they also have to be considered collectively and in judging of the gravity of the patient's condition the facial expression is of great value to those who have had experience. A depressed and anxious countenance generally denotes a grave condition, while a cheerful one, even if accompanied by an elevation of pulse and temperature, indicates that the condition is not serious. The physician charged with the care of a patient upon whom a laparotomy has been performed should not think too constantly of peritonitis—that bugbear of all who have had little experience with abdominal work—and consequently feed the patient upon salines rather than with milk or soup. On more than one occasion the writer has known this fear to be the father of the thought, and either the patient's life to be sacrificed or convalescence to be needlessly prolonged by this error in judgment.

In closing this paper, it is my desire to again call attention to the points which I think of importance, and which, as they are considered minor ones, are often overlooked. They are as follows:—1. The importance, whenever practicable, of prolonged preparatory treatment of patients about to undergo an abdominal operation. 2. The importance of the administration of cathartics in the early part of this period, followed by large enemas for the purpose of cleansing the intestinal tract. 3. The importance of keeping a record of the body temperature, respirations, and pulse-rate for several days in advance of the operation and of making a final examination of the urine. 4. The necessity, in the female, of arranging to have the operation performed a few days after the menstrual period and the cleansing of the vagina even when it is intended that the operation shall be by the abdominal route only. 5. The administration of a small quantity of peptonised food (1 oz.) containing stimulants two hours before giving the anæsthetic for the purpose of lessening the tendency to nausea and vomiting after the recovery of consciousness. 6. The necessity of the anæsthetic being given by an experienced physician and in the smallest possible quantity. 7. The necessity of protecting the patient's body properly with clothing and blankets during the operation. 8. The advantage of stimulating the patient before the heart has become much exhausted and of using intravenous saline injections before the radial pulse has become extinct. 9. The leaving in the abdominal cavity after free irrigation of a quantity of hot saline solution for the purpose of stimulating the patient, preventing (?) the formation of intestinal adhesions, and lessening the danger of septic infection of the peritoneum. 10. The necessity of making the patient comfortable by change of position during the first two days of convalescence and by the use of the rectal tube. 11. The necessity for the early administration of food in reasonable quantities and at proper intervals. 12. The necessity of withholding stimulating enemata after operations in which extensive and firm pelvic adhesions have been broken up. 13. The necessity for deliberation as to the wisdom of re-opening the peritoneal cavity in a given case of supposed concealed hæmorrhage. 14. The importance of washing out the stomach as soon as the diagnosis of intestinal paresis is made and of the persistent use of saline cathartics till the bowels move. 15 The importance of not administering cathartics too early or in too large doses to those convalescing from abdominal operations and who are pursuing a normal course.

New York.

A CASE OF ICTERUS GRAVIS.

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UNDER the term "icterus gravis" cases of jaundice occasionally occur, either in endemic or epidemic form, which usually prove very rapidly fatal. These cases closely resemble those of acute yellow atrophy and are therefore probably due to a very similar poison.

A woman, aged twenty-six years, married five years, the mother of two children, had not been in good health for some months. The catamenia had been irregular and pain had been complained of both in body and limbs from time to time since her last confinement in 1894. On Feb. 7th last she appeared to be in her usual health but the next morning, although not feeling well, she kept an appointment at her dressmaker's, when she was attacked with faintness, shivering, and vomiting. After her return home she vomited several times and the bowels acted freely once. Dr. Coates of Patrington (her usual medical attendant) saw her in the evening and ascertaining that there had been some uterine hæmorrhage (after two or three months' amenorrhœa), and finding some enlargement of the uterus, thought a miscarriage was threatening. He visited her again the next day (Feb. 9th) at noon and finding her flushed, with congested conjunctivæ, a temperature of 102° F., and a pulse of 120, and hearing that she had vomited several times during the night, he suggested

a consultation. Mr. Howlett saw her about 1.30 P.M. During that short interval a great change for the worse had taken place. The whole surface of the body and conjunctivæ had become deeply jaundiced and she had passed into a "typhoid condition." When I saw the patient for the first time at 5 P.M. she seemed hardly conscious, the skin was hot and dry, and the colour was very dark. The temperature was 102°, the pulse was 130, and the respirations were 24. The pupils were dilated but equal. The cardiac and respiratory sounds were normal; the tongue was dry and brown. Hepatic dulness was increased slightly. Apparently there was some tenderness in the splenic region but no definite enlargement. No urine had been passed since the evening before. As both Dr. Coates and Mr. Howlett had found the uterus enlarged it was decided to dilate and examine its interior. Nothing, however, was found, nor were any signs of recent abortion discovered. The catheter drew off about an ounce of black thick fluid. An enema of soap-and-water was quickly returned and it presented a dark black colour; this and some dark green matter vomited shortly after the uterine examination and the fluid drawn off from the bladder were sent up to the Clinical Research Association. On the morning of Feb. 10th at 9 A.M. the patient was restless and unconscious. The skin was deeply jaundiced. There was complete suppression of urine. There was no diminution in liver dulness. The abdomen was not distended. The temperature was 100°, the pulse was 130, and the respirations were 30. The bowels had not acted. Examination of the blood showed some increase of the white cells. After a wet pack the patient freely perspired and seemed temporarily better. During the evening of the 10th the pulse and respiration gradually increased in frequency though the temperature was found to be subnormal, the abdomen became distended, and total suppression of urine continued. The liver dulness did not appear to be altered. The patient never regained consciousness and died at 11 A.M. on the 11th.

The report received from the Clinical Research Association threw no light on the case. Phosphorus was certainly absent from the vomited matter and from the fluid from the bowel, and by no method could leucin and tyrosin be separated from the urine, though the quantity of urine was very small for the purpose. No mineral poison of any kind could be found in any of the specimens.

Remarks.—Jaundice with cerebral symptoms occurs (1) in phosphorus poisoning; (2) in typhus, yellow, and relapsing fevers and in pneumonia; (3) in pyæmic abscesses of the liver; and (4) in acute yellow atrophy, in Weil's disease, and in other severe cases of icterus gravis. Poisoning by phosphorus can hardly be distinguished from acute yellow atrophy unless the patient owns to having taken the drug or unless some of it is found in the vomited matter or fæces. None could be discovered and there was not the slightest reason to suspect that any had been taken either intentionally or otherwise. There was no evidence that the patient was suffering from any of the acute specific diseases, so that the diagnosis seemed to rest between acute yellow atrophy or icterus gravis and pyæmic abscesses of the liver. Pyæmic abscesses of the liver seemed contra-indicated (1) by the absence of any cause, external or internal, likely to induce them; (2) by the absence of rigors and profuse perspirations throughout the illness; and (3) by the very sudden supervention of intense jaundice. By a process of elimination the diagnosis of acute yellow atrophy or some other closely allied condition was arrived at. The points against acute yellow atrophy were: 1. Absence of diminution in the hepatic dulness. In order to establish the diagnosis of acute yellow atrophy we should observe a rapid diminution in the size of the liver. Even in the bodies of patients who have died four days after the commencement of symptoms the liver has been found much reduced. 2. Neither leucin nor tyrosin was found in the urine, but the quantity of urine obtainable was very small. 3 Complete suppression of urine. Although as a rule the urine undergoes important changes its quantity is not materially altered. Changes similar to those found in the liver have been noted as occurring in the kidneys, but I have not been able to find any case of acute yellow atrophy reported where total suppression of urine was present. As unfortunately no post-mortem examination was allowed the exact condition of the liver and kidneys must remain doubtful.

Hull.

THE OPERATION OF GASTRORRHAPHY (GASTROPLICATION), WITH NOTES OF A CASE.[1]

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GASTRORRHAPHY or "gastroplication" is an operation which has been designed for the treatment of dilated stomach not depending upon any obvious or removeable cause in or around the pylorus or duodenum. The postulate upon which the claim of the operation is based is that there are certain cases of dilatation of the stomach, of the "atonic" variety, where the grave and distressing symptoms depend very largely, if not solely, upon the enormous physical bulk of the organ. In such cases the operation by reducing the mass of the stomach and by lessening its cubic capacity would afford a reasonable prospect and probability of an abatement or a complete recession of all the disabilities due merely to such enlargement. It is an operation which consists, not in the removal or resection of any part of the stomach, but merely of the folding in, and subsequent fixing, of the anterior wall, or part of it, or of portions of both anterior and posterior walls. Various methods of carrying out this idea have been suggested and these I propose briefly to enumerate and describe later. I have recently had under my care a patient upon whom I have performed gastrorrhaphy with very signal relief to his symptoms and, although the time which has elapsed since the operation is altogether too short for me to give an idea as to his future immunity from suffering, I think a useful purpose may be served by my giving some details now of his history, treatment, and present condition.

A man, aged forty-seven years, was sent to me by Mr. Metcalfe Sharpe of Farnley on Aug. 16th, 1897, with the following history. During the last five or six years he had suffered from "indigestion" and occasional vomiting. For an hour or more after a meal he would feel comparatively tranquil and comfortable, but at the end of that time a feeling of weight and oppression in the epigastrium gradually developed until the pain became acute and at times wearing and intolerable from its mere persistence. His mouth was parched, his tongue was dry, harsh, and hot, and his thirst was almost unquenchable. During the period of distress there was occasional eructation. Vomiting, which latterly had been self-induced, was always followed by considerable relief, and he volunteered the information that at the early onset of this symptom fragments of food partaken of some few days before had returned in the vomit. Medical treatment both at the Leeds Infirmary and elsewhere had been for some time continuous and unremitting. Every drug with any sort of action on the stomach, every artificial aid to digestion known to science, and almost all the intestinal antiseptics seem to have been tried upon him, with at times occasional benefit, but latterly he had lost his faith in the medicine bottle and had abandoned drugs entirely. At the infirmary, where he was labelled "Dilated Stomach," he was taught to practise lavage of the stomach with very great temporary benefit. The washing out relieved him so much that for the last six months he had employed it twice daily. Large quantities of water were used on each occasion and he had roughly calculated that the stomach would hold five quarts. That his apparently exggerated reckoning was fairly accurate I feel sure, as on one occasion he had vomited a measured three quarts and his stomach was still splashy. Even by this careful attention to his stomach, however, he was never for very long quite free from pain, uneasiness or oppression, and he was anxious to know if anything further could be done for him. There was no history of jaundice or of hæmatemesis.

On examining him he was seen to be a thin, shrunken, sallow-complexioned man, wasted, nervous and ill. On uncovering the abdomen I found the stomach to be enormously dilated and I roughly computed that it would fill about two fifths of the whole abdominal cavity. At the pylorus I could feel nothing abnormal—no tumour, no special tenderness, and no rigidity of muscle. I could not elicit any obvious

[1] A paper read before the Leeds and West Riding Medico-Chirurgical Society, January, 1898.

peristaltic contraction of the stomach wall. I suggested to him an exploratory abdominal operation. If any pyloric disease were found it was to be appropriately dealt with by removal, by separation of adhesions or by gastro-enterostomy. If I found only a dilated stomach with no perceptible cause I was to perform gastrorrhaphy. He very willingly consented and on Aug. 31st I operated in the manner I shall presently describe, having negatived so far as I was able the presence of any obstructive condition in the region of the pylorus. His recovery from the operation was rapid. I think I never saw a patient suffer less from the usual post-operative troubles. He had none of the common drawbacks incident to almost all abdominal operations, no vomiting, no headache, and no thirst. From the very first I allowed him fluid by the mouth in small but gradually increasing qualities. He expressed immediate and complete relief from all his symptoms, but I attributed this as much to his lessened diet and recumbent position as to any immediate benefit attributable to the operation. He was kept in bed for a fortnight and was then allowed to get up and go home. His improvement has been uninterruptedly maintained. All sense of gastric uneasiness has left him. He has vomited once only and this seizure he ascribed to a specific and not improbable cause. He has gained slightly in weight. Before the operation he was 8 st. 11 lb.; now he weighs 8 st. 11½ lb. His food is varied much more than at any time during the last five years and his dietary is fairly liberal. He is amply satisfied with the result of his treatment and only wishes he had undergone the operation a year or two sooner. It is, of course, too early to speak of a cure in this case, but the patient has at least had four and a half months of such enjoyment of life as he had thought impossible and the hopes of which he had long ago abandoned, and I see no reason why this improvement should not be still longer maintained. His stomach is now on percussion a shade larger than a normal stomach, but it has undergone no increase since the first examination I made at the conclusion of the operation.[2]

I will now speak of the operation itself. It is to a Swiss surgeon, Bircher of Aarau, that the credit of having first performed the operation which was forecast by Ewald, belongs[3]; his first three cases were published in 1890. He was followed by Weir of New York in 1892,[4] by Brandt of Klausenburg in 1892,[5] by Bennett of London,[6] and by Shattuck of Boston in 1896.[7] The method of carrying out the principle of the operation seems to have differed with each operator and I shall show by means of diagrams what particular procedure was employed by each of the surgeons I have named.

In Bircher's method (Fig. 1, *a*), which was adopted by

FIG. 1.

a *b* *c* *d*

a, Bircher's method—vertical section of the stomach. *b*, Weir's method—vertical section of the stomach. *c*, Brandt's method—five parallel folds are shown, but Brandt himself only made two. *d*, Method adopted by myself.

Shattuck, the operator used a series of sutures, thirty-five in number, which at one end passed through the serous and muscular coats of the stomach at the greater curvature and at the other end picked up a similar portion of the stomach wall at the lesser curvature. On tying these stitches almost the whole of the anterior wall of the stomach was doubled upon itself and formed a wide fold projecting into the interior of the cavity. The introduction of the sutures was facilitated by passing the end sutures first and holding the stomach up by means of them. A pair of heavy forceps laid on the anterior wall of the stomach made the infolding easier. When the stitches were tied the surfaces brought into accurate and close apposition were not more than ¼ in. in breadth and would be therefore not unlikely to be torn asunder if any great tension were put upon the adhesions.

The disadvantage in Bircher's operation just alluded to was recognised by Weir of New York, who describes his operation (Fig. 1, *b*) as follows: "In the centre of the space between the upper and lower borders of the stomach a dimpling in of the gastric wall was made, first, by the pressure of a sound to a depth of 1 in. A row of eight or ten interrupted silk sutures was now made, passing through the serous and muscular coats for a distance of from 6 in. to 8 in., and the sound was then withdrawn. A second series of sutures about 1 in. from the first was again made, dimpling in an additional portion of the stomach wall and in a similar manner. A third and fourth row were applied until through a distance of some 4 in. or 5 in. the greater curvature was applied to the lesser. When the row was completed a double fold of the stomach equal to the breadth of the hand and nearly its length was formed." This method is, I think, a very decided improvement upon Bircher's, but the introduction of the sutures is more tedious and the time spent is considerably longer.

The next operator was Professor Brandt of Klausenburg (Fig. 1, *c*), who, operating in 1894, makes the statement that he had planned and demonstrated his operation, which he terms "gastroplication," in 1889. His method consisted in the introduction of sutures both on the anterior and posterior walls in such manner that two or more parallel folds were formed on each surface, one reef being taken in above the other. In this operation 200 stitches were introduced. This operation is more complicated than is desirable. To get to the posterior wall of the stomach and to make two parallel folds in it by means of 100 stitches is by no means an easy matter. The operation is necessarily more prolonged and when completed has no advantages which I know of as compared with other methods.

In 1896 a paper was published in THE LANCET by Dr. Ewart and Mr. Bennett of St. George's Hospital. Mr. Bennett, not knowing that the idea of diminishing the size of the stomach had been previously carried out, performed an operation very like Bircher's, but did not infold the whole of the anterior wall. The fold in his case was about 3 in. deep and 12 in. in length. It was intended to take in a second reef at the greater curvature, but the condition of the patient was very unsatisfactory, and the project had to be abandoned. Mr. Bennett's patient when seen seven months after the operation had some symptoms pointing to a recurrence, and it was suggested that the narrow line of adhesions might be giving way as a result of the constant dragging upon it. Mr. Bennett therefore proposed in any subsequent operation which he might perform to pass the sutures in and out through the stomach wall twice or thrice, so that, on tying, larger surfaces of the serous covering of the stomach would be apposed. The method which I adopted in my case was a carrying out of this suggestion of Mr. Bennett. I passed twelve sutures at a distance of about 1 in. from each other and each suture picked up the stomach wall at nine points. (Fig. 2.) The sutures were made to radiate from the lesser to the greater curvature and included all the anterior part of the stomach wall except for a small area at the pyloric and cardiac extremities. The sutures were drawn upon, held up and tied one by one. It was then seen that there were slight bulgings at each end of the reef which had been made and a second and third series of sutures were passed, one at each end of the stomach, so as to do away with this irregularity of outline. Special care was taken to round off the pyloric end so that no bulging or kinking would be possible. Previously to the introduction of the sutures I had made a careful examination of the pylorus and duodenum and had satisfied myself that there was no growth or stricture or other abnormal condition there. Such is a brief account of the various surgical procedures which have been suggested and adopted, and, so far as the mere manipulative part is concerned, I think there can be lit doubt that the operation I

[2] I have seen this patient to-day (April 12th). He now weighs 9 st. 6 lb. and makes no complaint save one—of temporary loss of appetite. He looks well, eats well, and enjoys his food. There has been no return of the vomiting.

[3] Correspondenzblatt für Schweizer Aertze, vol. xxi.

[4] New York Medical Journal, 1892, vol. ii., p. 29.

[5] Centralblatt für Chirurgie April 21st, 1894.

[6] THE LANCET, July 4th, 1896.

[7] Transactions of the American Surgical Association, 1897.

employed has considerable and striking advantages over the others. It is easy to perform, rapid in its execution, and has the advantage, possessed by none of the others, that one can see exactly how much of the wall of the stomach is being included; all the sutures can be passed before any one is tied, and, finally, it brings into apposition the walls of the stomach in a way best calculated to produce firm adhesions. The roll which projects into the cavity of the stomach is much smaller than might be anticipated and has, I should

FIG. 2.

Diagram illustrating the method of introducing stitches.

suppose, none of the possible disadvantages possessed by the long, flaccid, and pendulous folds produced in other operations. The abdominal incision in Bircher's and Brandt's operations was made parallel to the costal margin. In Bennett's case and in mine a medium incision was employed.

Such then, is the operation of gastrorrhaphy or gastroplication. It is a procedure which, so far as one can judge from the scant material at hand, is likely to have a certain range of usefulness when employed in suitable cases. What the ultimate position of the operation in surgery will be it is at this early period quite impossible to say. There are many points upon which we require more precise and more accurate information before a trustworthy and reliable decision can be arrived at. We must learn the frequency of the condition of atonic dilatation, so-called, of cases, that is, of enlargement of the stomach where the symptoms are due, not to any catarrhal or other organic disease in the walls of the viscus, but merely to the bigness of the organ, and where medical treatment has proved of little or no avail. Upon this point the physicians are the most competent to pass an opinion. It will be for them to say when, and in what case, a procedure of this sort is likely to be useful. We must so far as is possible guard against operative interference in cases not wholly suitable. In one case, at least, amongst the few already recorded there was an ulcer with some thickening at the pylorus and no very great distension of the stomach.

In judging of the mortality we cannot place any reliance upon statistics based on so few cases, but it is only reasonable to suppose that as the time occupied by the operation is brief, and as little or no material damage is done to any organ, the risks cannot but be very slight.

As regards permanence of relief there is again very little evidence upon which to base one's judgment. The only case of recurrence of symptoms is that under Mr. Bennett's care already mentioned. What seems most striking on reading the records of these cases is the immediate relief from the severe and most disabling symptoms which is invariably observed; whether such relief is permanent is a question which can only be answered in the future; but I think we may fairly argue that the more permanent the adhesions we produce by the operation we select the more likely are we to secure prolonged or possibly complete and lasting relief. The operation is as yet only in a tentative stage and it is solely for the purpose of calling attention to it as a procedure with some arguments to recommend and facts to justify and support it that I have ventured to introduce the subject.

Leeds.

DRAINAGE OF TAUNTON.—At a special meeting of the Taunton Town Council held recently it was decided to adapt the present Taunton sewage works to the septic tank system and to apply for sanction for a loan of £18 250 for carrying out these works.

ACUTE ATROPHY OF THE LIVER.

BY WILLIAM O'NEILL, M.D. ABERD., M.R.C.P. LOND.,
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WITH kind permission I would mention in THE LANCET a case of acute atrophy of the liver, or, as the disease is sometimes called, fatal or malignant jaundice, which came under my care some little time ago.

On Nov. 16th, 1897, I was requested to see a respectable married man, aged forty-six years. He was tall and slender and up to this illness he had not required medical advice since he consulted me sixteen years previously for some slight ailment. He was abstemious and correct in his mode of living and fortunate in having little or no anxiety on his own account or on that of his family. His house, which was rather small, was pleasantly situated and the drainage of the premises was very good. I found that the patient was slightly jaundiced and in a state bordering on collapse. He complained of headache, nausea, and vomiting, but more especially of an intense pain in the hepatic region. I ascertained that the temperature was below normal and that the pulse was small and weak and about sixty beats in the minute. The tongue was furred, the bowels were confined and the urine was scanty and contained some bile. There was no distension of the abdomen and he only felt tenderness when I pressed my fingers under the right ribs. The illness began on the 13th with chilliness and headache, followed by sickness of the stomach, pain in the right side, some yellowness of the skin, and rapid loss of strength. On the 12th the patient had spent the greater part of the day in laying down oilcloth on his kitchen floor and his wife thought that he had caught cold in so doing owing to the frequent opening of the back door, which admitted currents of cold air. The patient was ordered a stimulant and anodyne draught in effervescence, hot fomentations to the painful part, and injections of warm water, which brought away dark-coloured evacuations. The next morning I found that the pain and sickness of the stomach had subsided and the patient expressed himself as feeling so well and comfortable that a speedy restoration to health was confidently anticipated by himself and family and it was proposed that on the following Sunday thanks should be offered up in church in gratitude for the quick relief he had obtained from his great sufferings. His mind was quite clear, but his manner was more excitable than usual and the yellow colour of the skin had increased a little in intensity. The temperature was normal and the pulse was good and about 70 to the minute. On examining the abdomen I discovered that the liver was much smaller and the spleen was considerably larger than in health. A dose of a purgative saline mixture with ammonia was directed to be given every three hours, but few doses of it were taken. In the course of the evening the patient began to wander in his mind and to be drowsy. The delirium and drowsiness increased during the night and on the following morning he was lapsing into deep coma. The coma becoming profound he passed quietly away without having been convulsed in the slightest degree. Two hours before the patient's death the temperature had risen to 104° F. and the pulse was very quick and irregular.

The interesting points in this case were the short duration of the disease, which barely exceeded five days, and the great intensity of the pain in the hepatic region, which so resembled the pain caused by the passing of gall-stones that on my first seeing the patient I thought this might be the case. The following morning, however, although he felt better and appeared to be so to his family, I began to suspect the possibility of the development of a more serious state of things than I had apprehended the evening before and my suspicions were strengthened when I discovered that the liver was shrunken and that the spleen was larger than normal. When the symptoms of coma set in there could be no longer any doubt about the nature of the disease and the result to be expected.

It is evident that acute atrophy of the liver is a general disease in which all the organs of the body suffer more or less as well as the liver and in all probability micro-organisms of a malignant character are the exciting cause of the malady. In the above case the wind coming in through the back-door or the effluvium arising from the oil-cloth may have been carriers of the microbes, which could

easily enter the body through the medium of the lungs. But whatever the noxious poison was, the effects, especially toward the end, resembled, to my mind, those of opium poisoning with the exception that opium contracts the pupils of the eyes whereas in this case the pupils were widely dilated.

Shrinking of the liver in connexion with fatal jaundice was noticed as far back as 1826 by Dr. Allison of Edinburgh and a few years afterwards by Dr. Bright of London, and subsequently to this the same pathological appearance was observed by Dr. Graves of Dublin. In 1840 an interesting account of three cases of this disease was sent by Dr. Hanlon of Portarlington, Ireland, to Dr. Graves. The three patients were sisters, the oldest of whom was seventeen years of age and the youngest eight years of age. The two elder patients died comatose and the youngest recovered, a very unusual occurrence in this disease. In 1845 Mr. Busk and Dr. George Budd examined microscopically a liver that was taken from a man who died from fatal jaundice in the Seamen's Hospital and the appearances they noticed were much the same as those described by modern observers. But shrinking of the liver is not a necessary or constant pathological appearance in fatal jaundice. In 1891 a case came under my observation in which the liver was much larger than normal. The patient was a stout woman, aged forty years, who had suffered a long time from disease of the heart of an obstructive character. The abnormal size of the liver was caused, I think, by the diseased heart, and it may be that the congested state of the liver prevented its shrinking, which it might have done if the disease of the heart had not existed. The woman, who had an enlarged spleen, died comatose about a week after the jaundice set in. Neither of the foregoing patients presented any indication of hæmorrhage, but I remember a case of fatal jaundice in which it was a formidable complication. The patient was a fat, fair-haired woman of about forty-six years of age, who after a severe wetting and prolonged exposure to cold was seized with pain in the right side, followed by vomiting and other severe symptoms and jaundice. To relieve the pain leeches were applied and when they had fallen off the bleeding continued and could not be effectually stopped; then followed hæmorrhage from the bowels and stomach and patches of ecchymosis appeared on the skin and also an innumerable number of small spots of blood extravasation resembling fleabites. Soon after the bleeding set in the woman lapsed into coma, in which state she died after an illness that did not exceed ten days.

Fatal jaundice is one of the rarest diseases in this country with which the physician has to contend, and happily for his peace of mind that this is so, for in his encounter with it he hardly ever comes off victorious. It may therefore be conjectured that the treatment of the malady is most disappointing. Treatment can relieve pain and suffering it is true, and this in itself is a great boon to the sufferer, but it is, I think, nearly futile in arresting that downward course which ends in Sheol. Saline purgatives, quinine, mineral acids, and astringents when bleeding takes place have been recommended. But from the nature of the disease what we want is some ingredient which would grapple with, and render innocuous, the microbes or other noxious matters circulating in the blood.

Lincoln.

THREE UNUSUAL CASES OF RENAL CALCULUS.[1]

BY WILLIAM HENRY BATTLE, F.R.C.S. ENG.,

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I HAVE thought that a short account of some unusual cases of renal calculus would be of interest to the Fellows of the Medical Society of London and have selected three from amongst those which have been under my care during the past year or so. The surgeon is so frequently called upon at the present time to perform the operation of nephrolithotomy that the account of an ordinary case is no longer of interest excepting to the surgeon himself and the patient who is relieved of the stone. The cases which I have selected are as follows: (1) a case in which constant hæmaturia, although the patient was lying in bed, had persisted for some time unaccompanied by pain of a nature to permit of our diagnosing the site of the calculus; (2) one in which some pain in the kidney had persisted for ten years without renal colic but in which the symptoms made diagnosis easy; in this case the stone was of unusual formation; and (3) a case of acute pyonephrosis due to obstruction of the ureter, in which nephrotomy was required and a stone removed, subsequent exploration of the ureter performed, and later a pultaceous mass expelled per urethram after which the lumbar wound closed.

CASE 1.—A woman, aged forty-four years, was admitted to the Royal Free Hospital under the care of Dr. Calvert on Jan. 4th, 1894. Five years before she had undergone abdominal section for the removal of uterine appendages, but otherwise, with the exception of symptoms of cardiac trouble, she had had nothing noteworthy in the way of illness. Six weeks before admission she had had a more severe attack of pain in the region of the heart than ever before and a month ago she had noticed blood in the urine. It was dark in colour and there was a little pain after micturition. This had continued unchanged until admission. On admission she had pain and tenderness over the cardiac area with evidences of hypertrophy of the heart and disease of the mitral valves. The urine was of a dark red colour and was acid with a specific gravity of 1014; it contained blood but no pus cells, casts or crystals. The patient said that there was some pain on both sides of the spine in the lumbar region and she complained of tenderness on pressure over both kidneys, but the kidneys could not be felt nor was there any difference in the amount of resistance on the two sides. I saw the patient for the first time with Dr. Calvert on March 1st. There had been little change in the state of the urine since her admission to the hospital although she had been kept in bed all the time. The urine had been acid and uniformly of a dark red tint. Many examinations had been made and although the quantity of blood corpuscles found did not quite account for the amount of colouration of the urine there was no doubt of their presence and in addition a varying amount of pus had been observed from time to time. Examinations for tubercle bacilli had yielded a negative result. She admitted that during some months she had suffered on and off from backache, but affirmed that this had not been more marked on one side of the spine than on the other. I recommended operation, but the patient did not agree to it, and a trial of hammamelis was made but without appreciable effect on the bleeding until the dose had become about a drachm three times daily, when the urine cleared somewhat. During the next few days she had a good deal of backache and stated that the pain invariably began if she turned on her left side and started in the right side, being relieved if she turned on the right side or on her back. Before she gave consent to the operation, which was performed on July 7th, there had been but little improvement in the condition of the urine, although for a time the amount of blood passed appeared to almost disappear under the use of the hammamelis. The state of the heart was better, the pulse becoming more regular and less rapid, whilst there was less complaint of pain. Ether was administered and the operation was well borne. An incision was made through the old scar in the middle line and the kidneys were explored. The right one was larger than the left and contained a hard substance in its pelvis. The abdominal wound was therefore temporarily closed, the patient turned on the left side and a stone removed from the right kidney through the loin in the usual manner. The substance of the kidney on its posterior aspect close to the pelvis was incised and the finger was inserted. The stone, which was very irregular, with one branch running at right angles to the main part and posteriorly, was extracted with some difficulty as the forceps frequently slipped in consequence of the crumbling of a layer which covered the surface. Altogether it measured about 2½ in. in circumference and was composed of a hard dark mass covered with a softer, greyish, friable layer of phosphates. The main portion was oxalate of lime. The upper part of the kidney pelvis was dilated, but no change in the lining of the pelvis was apparent to account for the bleeding. The wounds were then closed, a drainage-tube being inserted into the lumbar one. The left kidney was apparently normal. The weight of the calculus was 116½ grains.

Recovery was slow although there was nothing noteworthy as to the manner in which the wounds closed. At the end of a fortnight there were no blood corpuscles to

[1] A paper read before the Medical Society of London on April 25th, 1898.

be found on microscopical examination of the urine but pus cells could still be found. During the early part of August she passed small fragments of calculus per urethram; this was probably the result of the crumbling of the phosphatic envelope of the main calculus when it was taken away at the operation, for considerable difficulty was experienced in clearing away the smaller pieces from the renal pelvis. The state of her heart necessitated her remaining in the hospital until the end of the year, and whilst under treatment she frequently complained of backache and pain across the loins, but it is very probable that much of this was neurotic, for as her health improved so the pain diminished. It was not easy to account for the hæmaturia in this case, for the amount of blood in the urine was considerable, it had persisted for some time, and it continued although the patient was kept strictly in bed. We agreed that the diagnosis was between calculus of the kidney and new growth. In favour of the former was the history of lumbar pain with on more than one occasion a paroxysmal attack, although nothing like renal colic was described. The absence of renal enlargement was in favour of this, and later the presence of an uncertain though always small amount of pus in the urine. It was not, however, possible to guess as to which kidney was affected, there being an almost complete absence of localising signs. I spoke to the patient about the pains in her back when she was convalescing from the operation and said: "But you never had pain in the right side more than in the left," to which she replied: "Oh, yes, I had." I asked: "When?" and the answer she made was: "Why, the night before the operation."

The only case of stone in the kidney with such excessive hæmaturia which has been under my personal observation was one associated with a villous tumour of the renal pelvis and I ventured to diagnose tumour in addition to calculus on account of the excessive hæmorrhage. It was hardly possible to exclude villous growth of the pelvis of the kidney without exploration, but the absence of the other signs of new growth made it evident that no malignant growth was present in this case.

CASE 2.—A woman, aged twenty-one years, was sent to be under my care at St. Thomas's Hospital from Rugby by my friend Mr. Relton and she was admitted on April 10th, 1897. She had been seen by Mr. Relton ten years before for pain in the side and hæmaturia. He had diagnosed a renal calculus and recommended operation, but her parents had refused. She had never had severe pain nor did it at any time resemble renal colic and she had been able to do her work regularly, but the pain was fairly constant and of a dull, aching character, worse on exertion and when she was tired. Recently her parents had been alarmed by three or four attacks of hæmaturia of rather more severe character which had compelled her to lay up. When four years old she had had jaundice and had suffered from dysmenorrhœa for the last five years, but otherwise with this exception she has managed to do her work. The family history was good. When admitted to the hospital she was a healthy looking girl of good colour and complained of a dull, aching pain in the right side. Nothing abnormal could be felt in the abdomen. There was no tenderness over the kidney and no rigidity of muscles or undue fulness in the side. The urine was of specific gravity 1020, acid, clear, and pale, with a slight deposit of mucus; there was a very slight amount of albumin but no sugar. Dr. Blacker kindly examined the case in the x ray department with the screen and made the following note: "Fluorescence extremely good; indistinct opacity was seen in the right upper half of the abdomen, marked towards the middle line, but no definite area of opacity was made out. The whole of the right side of the abdomen was darker than the left." When lying still she had no pain, but the visit to the x ray department caused her to complain again of it, but there was no blood in the urine. On the 26th there was still a fair trace of albumin and the urine showed the presence of oxalate of lime and a few uric crystals on microscopical examination. There were also a few pus cells. On May 5th there was no albumin in the urine and on that day I removed a calculus from the kidney through a lumbar incision. This calculus was felt on palpating the kidney to be placed in the upper part. An opening was made through the substance and the finger was passed into the pelvis of the organ. A very rough stone was felt in the upper part which could not be dislodged with forceps until it had been actually dug out of the renal tissue by means of the fore-finger and a director; it was embedded in the tissue of the posterior and upper part of the kidney and its separation was attended and followed by a good deal of bleeding. The kidney was apparently quite normal. Afterwards for the first few days there was a good deal of blood in the urine and the drainage-tube which had been inserted after the operation was removed and the wound was plugged with cyanide gauze for five days. No suppuration followed and the after-course of events was satisfactory excepting for the presence of blood in the urine. This, however, was found for a fortnight only, gradually disappearing. She left for her home on the 30th and has continued well.

The stone which was removed was apparently divided into two parts, the smaller somewhat rounded part, to which torn renal tissue adhered, and the larger, which was almost of the size of a peach-stone and greatly resembled a dry one on the surface, the crystals being large and arranged in laterally opposed plates with sharp edges. It was a pure calcium oxalate stone.

This case is interesting from the peculiar arrangement of the oxalate crystals, which had caused the stone to assume a very uncommon appearance. This has been decribed by Mr. Shattock and Dr. Ord in their paper read before the Pathological Society of London, but is not mentioned in our text-books and is found in very few of our museums. Moreover, surgeons with large operative experience have not met with it. This case is additionally interesting from the peculiar way in which the stone was held up in the kidney, which accounts, I think, for the absence of renal colic. Movement would jar the stone but would not dislodge it and although the history was of unusually long duration and the stone had reached a considerable size there was no evidence of disease of other parts of the kidney. From the difficulty in separating the stone and from the fibrous character of the soft tissue which remained on the part of the stone which had been buried, as well as from the hæmorrhage attending its removal, I am of opinion that it had formed in the renal tissue and not in the pelvis or in a calyx.

I have here another oxalate of lime-stone which I removed from one of the cases on which I operated last Wednesday. It resembled in appearance a miniature hen on a pedestal, the body of the bird being bent down as if pecking at something near its feet. The pedestal part, which is the smaller, was contained in a dilated calyx, whilst the narrow part was tightly nipped by the opening into the renal pelvis. The small calculus accompanying was in a cyst which communicated with the dilated calyx in which part of the larger stone was held. The patient, a young man, had had symptoms for many months but had not had a definite renal colic.

CASE 3.—A girl, aged seventeen years, was admitted under my care into St. Thomas's Hospital on Dec. 15th, 1894, suffering from severe pain in the right side of the abdomen. Two years before she had had an attack of pain in the right side and vomiting, followed by the passage of a small calculus, and she was ill for a week. Some months afterwards she had another similar attack, which passed off in a few days, but no calculus was passed on that occasion. The present illness commenced suddenly three days before admission with severe pain in the right side of the abdomen and vomiting which lasted until admission. There was no history of tubercle in the family, but her father had undergone the operation of nephrectomy for some disease of the kidney the nature of which they did not know. The muscles on the right side of the abdomen were rigid and much tenderness was complained of on palpation. A large swelling was present in the right lumbar region extending from the level of the anterior superior spine of the ilium to the under surface of the liver. There was absolute dulness in the flank, but the exact limits of the swelling could not be well defined on account of the acute tenderness. No fluctuation could be felt. The specific gravity of the urine was 1030; it was scanty, neutral in reaction, with some deposit of urates. The rapid course, large size, acute pain, and tenderness of the swelling and its extension into the iliac fossa made the question as to its origin in the appendix one to be considered, but it was thought most likely to be a pyonephrosis due to obstruction of the ureter by calculus. Hot fomentations were applied and the patient was kept quiet in bed on a liquid diet. Two days after admission the swelling was larger, better defined, and fluctuating. She was irritable but inclined to sleep. The temperature was 102·4°F. There was now no vomiting. In the afternoon the kidney was exposed through a lumbar incision, tapped, and a large quantity of pus was

evacuated. Through the enlarged opening an ovoid uric acid calculus measuring 1 in. by ½ in. was extracted; it was lying loose in the abscess cavity. No other stone could be felt either in the kidney or the ureter and it was considered inadvisable to make any prolonged search, although the opinion was held that the cause of the condition had not been found. This opinion was confirmed by the later progress of the case, for no blood appeared in the urine after operation nor was its amount increased. The patient was much relieved as a result of this incision into the kidney and urine escaped from the wound without any diminution in its quantity until Feb. 5th, 1895. During the earlier part of this time there was an admixture of pus, but later it was almost normal. The quantity of urine passed by urethra varied from 10 oz. to 25 oz. in the twenty-four hours. A drainage-tube had been kept in the loin wound as it was considered best to give the opening in the kidney a chance to heal before the soft parts. As the flow of urine did not diminish and the diagnosis was that a small calculus obstructed the ureter exploration of the ureter was decided on and carried out on Feb. 5th through an incision in the right linea semilunaris. The ureter was traced from the renal pelvis down to the bladder. No stone could be felt and the only thing that appeared unusual was a limited thickening, not well defined, where the ureter crossed the pelvic brim; above this the ureter appeared to be somewhat dilated, below it was apparently normal. The pelvis of the kidney was normal and it was very interesting to find that the kidney itself had resumed its proper size and shape. Examination of the bladder after dilatation of the urethra with the finger yielded a negative result, as also did examination by the rectum. The wound was sutured in layers. Incontinence of urine followed and lasted for five days, but she suffered no further inconvenience from the examinations. As no calculus had been found in the urinary passages and obstruction continued it was decided to try what pressure from above would do and with this object the drainage-tube was removed from the loin wound which was allowed to close. No result was apparent until Feb. 19th, when the patient complained of severe pain on micturition and passed a pulpy mass of greyish colour, of the size of a hazel nut with 11 oz. of urine. In less than three hours' time 18 oz. were passed without pain. The wound in the loin rapidly closed, the quantity of urine passed daily was natural, there was no pus in it, and the patient was able to leave the hospital on Feb. 24th and has continued well since.

The history of old attacks of renal colic made it appear probable that the case was one of blocking of the ureter by a calculus and the formation of an acute pyonephrosis. At all events it appeared probable that the sudden onset of symptoms indicated an obstruction of the ureter from within, and when at the first operation the only stone found was in the abscess cavity and not definitely in the pelvis of the kidney or entrance of the ureter, when the urine from the affected kidney all came through the lumbar wound and it was evident that the obstruction continued, exploration was clearly indicated. The result of this being negative as regards calculus made it probable that the block was caused by some softer substance, but the condition of the ureter as found at the second operation did not help very much in the clearing up of this point. The complete recovery from such a large pyonephrosis is also noteworthy, for the kidney was apparently normal when examined on Feb. 5th through the abdominal incision.

Mansfield-street, W.

ON PRIMARY ENTERECTOMY IN CASES OF INTESTINAL GANGRENE, WITH AN ILLUSTRATIVE CASE.

BY CUTHBERT LOCKYER, M.B., B.S. LOND., F.R.C.S. ENG.,

PATHOLOGIST TO THE SAMARITAN FREE HOSPITAL FOR WOMEN; SURGICAL REGISTRAR TO CHARING-CROSS HOSPITAL AND DEMONSTRATOR OF SURGERY IN THE MEDICAL SCHOOL.

PRIMARY resection as a treatment for gangrenous bowel was for years the subject of controversy among surgeons. Before the use of the various cylinders and plates it was doubtless preferable in many cases to produce an artificial anus with a view to subsequent resection rather than immediate enterectomy, on the ground that owing to the very critical condition of patients suffering from acute obstruction the prolonged and tedious operation for suturing the gut after resection would not be well borne. By the aid of the various mechanical devices of recent invention the slow process of Lembert's stitching is rendered unnecessary and the time taken to complete the anastomosis is reduced to a minimum. It has thus come about that the entire operation of resection and bowel union has been effected in the short space of twelve minutes and the possibility of such a feat has given popularity to the plan of removing gangrenous or suspicious bowel as soon as the latter has been cut down upon. On turning for a moment to the teaching of statistics overwhelming evidence is to be found in favour of primary resection of gangrenous bowel; for instance, Lockwood,[1] after analysing 37 cases of gangrenous hernia treated by artificial anus at St. Bartholomew's Hospital, finds that this method yields a mortality of 89·18 per cent. Again, Mikulicz[2] showed that in 168 cases which were collected from the practice of seven operators and in which the two operations—resection and the formation of an artificial anus—were included the mortality after resection amounted to 47·1 per cent., whilst that after the formation of an artificial anus amounted to 76·6 per cent., and Mikulicz himself performed 21 resections with 14 recoveries, and of the 7 deaths only 2 were attributable to the method employed, whilst in 7 cases in which he made an artificial anus all ended fatally. Zeidler's[3] figures throw light upon the treatment of gangrenous hernia; 289 cases of resection show a mortality of just over 49 per cent., whilst 287 cases of formation of an artificial anus show a mortality of over 74 per cent.—i.e., 25 per cent. greater. Glass[4] in 1897 collected 48 cases of resection with 3 deaths, or 6·25 per cent. McCosh[5] tabulates 115 cases of resection, of which 50 per cent. were fatal, and Razoumowski of St. Peterburg collected 26 cases of primary resection for strangulated hernia with 7 deaths only—12·26 per cent. It will be seen, therefore, from the above statistics that primary resection of sphacelating gut gives the patient the best chance of recovery in the majority of cases. I do not mean to imply by this that the older operation is to be entirely abandoned; that cannot be, for in cases of diffuse peritonitis or in cases of profound collapse resection would be out of the question and the establishment of an artificial anus the only justifiable surgical procedure. Likewise in cases of marked meteorism and distension all that can be done is to make a temporary opening in the distended gut.

Having assigned to primary enterectomy its proper place in surgery the question which next presents itself is—What method shall be employed in the intestinal anastomosis? Having regard to methods in vogue a threefold choice is open to the operator: (1) simple suturing; (2) suturing with the aid of temporary splints; and (3) the use of metal buttons. The method of suture with a temporary splint is the oldest, for French surgeons employed the trachea of a calf for this purpose in the thirteenth century. Next in point of antiquity is the simple suture which was first successfully performed by Ramdohr in 1780. The metal bobbin was first heard of in 1847, when Deman[6] employed a combination of three rings and a spring in bowel union; this is the prototype of the Murphy button. I may say at once that each plan has its supporters. There are surgeons who advocate the use of unaided suture to the exclusion of all mechanical assistance; on the other hand, there are surgeons who invariably give the sutured bowel the support to be derived from a button or a bobbin. The latter class of operators differ only in their opinion as to the relative advantages of the metal buttons as compared with the bobbins made of decalcified bone. With regard to simple suturing several plans have been devised. First come the Lembert and Czerny-Lembert stitches. To the use of these for end-to-end anastomosis there are objections. Both Jacobson and Treves are agreed that from twenty-five to forty-five stitches are required, and these will take considerable time to adjust. Moreover, for approximation by suture one requires good healthy peritoneum to work upon, and this cannot always be obtained, especially in cases where adhesions exist, for here peritoneum

[1] Annals of Surgery, 1890.
[2] Schmidt's Jahresbücher, Leipsic, May 13th, 1892.
[3] Centralblatt für Chirurgie, Leipsic, Jan. 21st, 1893.
[4] Transactions of the Medical Society of New York, 1897, p. 383.
[5] Medical and Surgical Reports of the Presbyterian Hospital, New York, 1896, vol. i., p. 160.
[6] Chelius's Surgery, 1847.

as such may have disappeared in newly formed tissue or after separation become too attenuated to support the sutures; therefore it is clear that there are cases where simple suture cannot be carried out. Many surgeons argue also that it is not always possible to effect a watertight union by the Lembert stitch. Maunsell's method of suturing has promised much, especially in intussusception, but it is open to the serious objection that the stitches pass through all the coats of the bowel and leakage of intestinal contents may follow its use, as was shown to have occurred in three cases recorded by Bidwell from the practice of the West London Hospital; and, further, the line of union has been known to yield, giving rise to septic peritonitis. Mayo Robson says the peritoneum is more likely to be infected by this than by any other method of suture. A method of suture not generally practised, but which strongly appeals to me, is that devised by Leonard Rogers.[7] He acts on Greig Smith's statement that a sero-fibrous is the firmest union, and accordingly strips a collar of serous membrane from one of the cut ends of the gut, thus baring its muscular elements; he then sews the serous coat of the other end to the muscular coat of the end prepared, draws the peritoneal collar over the first row of stitches and sews the edge of the collar to the serous coat of the other end of bowel. There are therefore two rows of stitches, one through serous and muscular (now buried) and one uniting serous to serous. The serous coat strips easily and the operation takes half an hour. This plan acted well in the case of dogs experimented upon by Rogers, but has not yet to my knowledge been tried on the human subject. The time taken up in suturing will, I think, militate against its becoming the favourite method of union, but it has very strong supporters in Harrison Cripps, Bruce Clarke, and Abbé, the latter surgeon having discarded his catgut rings in favour of plain suturing. In comparing the statistics of the suture with those of approximation by mechanical means I find that in Mayo Robson's[8] 26 cases the mortality for unaided suture was 55·3 per cent., whereas the mortality in cases where his bone bobbin was used was only 8·3 per cent. Weir was able to collect 35 cases of primary suture in which all the patients died. It is only fair to mention that Edmunds and Ballance,[9] as the result of operations on the thicker intestines of dogs, came to the conclusion that simple suturing is the best plan both for lateral and for end-to-end anastomosis. For the former they advise Halstead's and for the latter Maunsell's method. The salient objection to simple unaided stitching is that it takes up so much more time than union by a button, and since it must be granted that it cannot be suitably adapted to meet all cases I will take in review the various mechanical appliances at the command of the surgeon. Some are digestible but others are not. Of the former I may mention Neuber's, Mayo Robson's, Allingham's, Ball's, and Bailey's decalcified bone bobbins, also Senn's plate and Paul's invagination tubes, Abbé's catgut bobbin and Beasley's catgut and rubber ring. Then come the non-digestible supports, such as Murphy's button, with modifications by Jackson Clarke and also by Miller, Frank's coupler, Chaput's bobbin of malleable tin, A. J. Downe's (Philadelphia) rubber collapsable bags, and further suggestions have been offered by Cheatle, Hastigan, and Frank.

To make a comparison between the relative merits of the several appliances would occupy more space than is placed at my disposal. I will content myself by saying that were it not for the fact that Murphy's metal button has such a brilliant record of successes to show I would leave the metal bobbin out of consideration altogether. The great plea for the use of any appliance is that by so doing the operation is shortened in point of time and better union is likely to be got when the bowel is kept at rest by a temporary splint. Since Murphy's button has been so far the most popular instrument its merits and demerits are worthy of discussion. Its merits rest on results. Murphy[10] records 27 cases in which the button was used with 9 deaths, and 5 only of these were from preventable causes. In Robson's hands the button had a mortality of 20 per cent. In 1896 Banks records its use in 7 cases with 2 deaths. Kummell[11] collected 17 cases of resection in 15 of which Murphy's button was used; 3 deaths occurred soon after operation, and of the remaining 12 all lived for some considerable time and 6 are recorded as having completely recovered. Carle[12] has used the button fifty times with good results and he also records that during the last two years he and his assistant Fantino have used the button twenty times for gastro-enterostomy with no death. In Graff's collection of 25 cases for 1893 to 1895 the button was in no case the cause of death. Individual successes are far too numerous to mention. Despite such a run of good fortune very serious objections present themselves in the use of the button. Amongst the many drawbacks may be mentioned (1) stenosis of the gut as a sequel; (2) obstruction of the small lumen; (3) failure to pass (4) gangrene extending from the seat of pressure or set up by the button in its passage down the canal; (5) injury to the bowel during closure by the pressure of the fingers causing the sharply cut apertures for drainage to lacerate the mucous membrane; (6) impossibility of disarticulating the button once it is closed; and (7) erosion of the spring by gastric juices. Chaput[13] cites 3 cases of stenosis and Ball[14] records a case, but this is not peculiar to Murphy's method; in my opinion it is far more frequent after simple suture. Chaput mentions 4 cases of obstruction and he does not agree with Meyer and Murphy, who say that purgation will overcome this difficulty. As to delay in passing there are many cases on record where the button has not passed at all. Murphy mentions 4 cases, Meyer 2, and Morton 1. In Allas's[15] case the button was retained for 16 months and in Wyeth's[16] case for 127 days. In Quenin's case it was retained till death 16 months later. Kammerer attempted extirpation after the button had been retained for 12 weeks and the patient died from peritonitis. The ileo-cæcal valve is the point of hindrance to the passage of the button, for in the case of double resection recorded by Glass the button he inserted into the large intestine passed on the fifth day, whilst the one which united the ends of the small gut took 28 days in its passage. The long delay of the button in the bowel is a very serious drawback. Its presence, as will be seen in the case published below, gives rise to sharp attacks of colicky pains and localised tenderness; but, what is worse, it may give rise to a series of ulcers along the alimentary tract and some of these may perforate. Again, gangrene and perforation have occurred 20 times to Chaput's knowledge. Quite recently this accident happened in a case at Charing-cross Hospital under the care of Mr. Morgan, and most surgeons are acquainted with this serious objection. I believe the objection raised to the use of the button in operations on the stomach is entirely theoretical, for there is very little hydrochloric acid present in cases of gastroectasis, especially if the stricture is malignant, and it would be a very simple matter to gild the button if necessary. These manifold objections have resulted in modifications of the button being devised by Jackson Clarke, Miller, and others, and new methods of anastomosis are still being suggested by Cheatle, Frank, and Hastigan. In point of dispatch Murphy's plan of anastomosis is *facile princeps* and its introduction is a matter of extreme simplicity, and for these reasons it will always have a place in intestinal surgery. The main risks in its use lie in its slow passage endangering the entirety of the bowel and the liability to gangrene of the bowel around the button whilst it remains *in situ*. I predict, therefore, that the decalcified bone bobbins will ultimately prove to be of greatest service in aiding intestinal anastomosis.

A woman, aged seventy-seven years, was admitted into Charing-cross Hospital under the care of Mr. Bloxam on Aug. 16th, 1897. She was suffering from strangulated femoral hernia. Two months before admission to hospital she fell down a flight of twelve steps and afterwards noticed a swelling in the right groin. Four days before admission to hospital acute symptoms set in and became aggravated up to the time of admission. The patient was operated upon at once. When the sac was opened a quantity of thick, grumous, fœtid fluid escaped and a knuckle of small intestine about 4 in. in length was exposed. The loop was intensely congested and at its convexity there was a gangrenous patch of the size of a florin. The vessels of the

[7] Brit. Med. Jour., 1896, vol. i., p. 903.
[8] Transactions of the Clinical Society of London, 1898, vol. xxix., p. 142.
[9] Edmunds: Transactions of the Royal Medical and Chirurgical Society, 1896, vol. lxxix., p. 255.
[10] THE LANCET, April 27th, 1895.
[11] Archiv für Klinische Chirurgie, Berlin, 1895, Band liii, p. 87.
[12] Riforma Medica, Napoli, 1897, vol. xiii., part 3, p. 541.
[13] Bulletin de la Société de Chirurgie, Paris, July 24th, 1895.
[14] Brit. Med. Jour., vol. i., 1897, pp. 1021, 1095, 1320.
[15] Presbyterian Hospital, Philadelphia, March 3rd, 1895.
[16] Nashville Journal of Medicine and Surgery, 1896, pp. 79, 161.

corresponding portion of the mesentery were congested but were not thrombosed. Having regard to the patient's great age the establishment of an artificial anus was suggested, but the anæsthetist (Mr. Bellamy Gardner) agreeing that the operation could proceed a portion of the gut 4½ in. in length was removed, the stricture having been eased by a vertical cut directly upwards through Poupart's ligament. A Murphy's button with a diameter of $\frac{1}{16}$ in. was inserted in the usual way and all bleeding points in the mesentery were secured. The parts were cleansed with a 1 in 2000 perchloride solution and the bowel together with the mesentery was returned into the abdominal cavity through the enlarged crural opening. The sac was ligatured and cut off, the deep parts were united with a fishing gut stitch, a drainage tube was inserted between the skin and the muscular planes and the superficial wound was sewn with interrupted fishing gut sutures. The pulse was 104, regular, and stronger after the operation than it had been before it. In the after treatment nothing was given by the mouth except sips of warm water for four days; small nutrient enemata were administered every two hours and all were retained. The patient passed a large stool from the lower bowel during the night after the operation. Two days after the operation flatulence became troublesome and great relief was obtained from turpentine enemata. The drainage-tube was retained for two days. The superficial wound suppurated for a while owing to contamination by the fluid in the hernial sac at the time of the operation. Hypostatic congestion set in at the bases of the lungs ten days after the operation. The patient suffered from colicky pains and some localised tenderness in the right iliac fossa which was worse at some times than others and these were complained of until the button was passed on the thirtieth day after operation. She left the hospital five weeks after the operation. I visited the patient at her home on Jan. 19th, 1898, and found that the wound was sound, that there was no sign of hernia on coughing, that the bowels were acting quite regularly and without pain, and that beyond the fact that she was seventy-eight years of age she had nothing to complain of.

I believe that the pain and tenderness in the right iliac fossa noted in the above case were caused by the button's passage being obstructed by the ileo-cæcal valve. That the button might be in the rectum was put out of court by examination for it in that situation. With regard to the division of Poupart's ligament, as Ball has pointed out, this does not weaken the abdominal wall any more than an incision in any other part of the abdomen. In the above case the soundness of the wound at the present time bears out this statement. Resection through the original wound presents less risk of infection than the plan practised by some surgeons of opening the abdomen and drawing the gangrenous bowel from the crural canal across the peritoneal cavity and resecting through a second wound. The great age of the patient is the most remarkable feature in the case. I am indebted to Mr. Bloxam for permission to publish the case and also to Mr. Morgan for permission to mention a recent case of his by way of illustrating a point in this paper.

Charing-cross Hospital.

LLANELLY HOSPITAL.—Owing to the resignations of the nursing staff at the Llanelly Hospital the committee of that institution has decided to temporarily close the hospital except in cases of serious accidents.

THE NEUROLOGICAL SOCIETY OF LONDON.—This society held its first meeting out of London on April 23rd, when, at the invitation of Dr. Alexander Hill, vice-Chancellor of the University, a meeting was held in the Physiological Laboratory at Cambridge. The following communications were made:—Dr. Alexander Hill: Some Specimens of Granules (demonstration).—Professor MacAlister: The Race-characters of Australian Brains (demonstration)—Dr. J. N. Langley: Some Points relating to the Sympathetic System (demonstration).—Dr. Gaskell (for Miss Alcock): The Distribution of the Facial Nerve in Ammocœtes.—Dr. F. E. Batten: (1) Nerve Terminations in Muscle Spindles (demonstration); and (2) (for Dr. Sihler of Ohio), Motor Nerve Termination within the Muscle Spindle (demonstration).—Dr. Mott: Degeneration of the Neuron (demonstration). At the conclusion of the meeting members and visitors were entertained at dinner by the Vice-Chancellor in Downing Hall.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTES ON FOUR CASES OF PUERPERAL ECLAMPSIA.

BY G. FOWLER, L.R.C.P. EDIN.

CASE 1.—The patient was a married woman, aged eighteen years, eight months pregnant with her first child. There was no neurotic family history. The patient enjoyed perfect health till the day before I was sent for. She then complained of giddiness and flashes before her eyes and voided a very small quantity of urine which coagulated into a semi-solid muddy-looking mass. When I arrived at the house in the morning she had passed a restless night and complained very much of "slight twitches" (spasmodic contractions) of her hands and feet. I gave her full doses of chloral and applied mustard sinapisms to her calves. Two hours after I was hastily summoned as she had had a general convulsion and was quite unconscious. I found her in a violent general epileptiform seizure, having bitten her tongue rather severely. I tried to prevent her from further damaging her tongue by means of a gag and at once administered chloroform and kept her under its influence for nearly half an hour. As long as she was under the anæsthetic no convulsion existed, but as soon as its effects had passed away the fits came on again at regular intervals. As a last resource, considering the gravity of the case, with the consent of those most interested in her, I induced premature labour, dilating the os by means of Hegar's dilators and Barnes's bags, and when the os had fully dilated ruptured the membranes and delivered her with Simpson's long forceps. The whole operation lasted some time but was to my entire satisfaction. The child was stillborn. After delivery the mother had one severe convulsive seizure and from this time all proceeded well, the patient gradually recovering consciousness but having no recollection of what had occurred for some hours previous to or during labour. Since then I have delivered this patient of her second child, a healthy male, which presented in an occipito-posterior position.

CASE 2.—The patient was a married woman, aged twenty-one years, seven months pregnant with her first child. I was hurriedly summoned to see her as she had had a number of fits and was quite unconscious. When I arrived I found that both the upper and the lower extremities were very much swollen and œdematous. Urine had not been voided for twenty-four hours. Digital examination revealed an almost fully dilated os, a roomy pelvis, a cranial presentation, and the membranes intact. Fearing the onset of further convulsions I at once ruptured the membranes and awaited the result. This increased the uterine contractions, but unhappily while the head was rapidly descending a severe convulsive attack came on resembling an epileptic fit and this seemed to stop the further progress of the labour. This convulsion was soon followed by another, the fits occurring at regular intervals. As the head appeared to me to be acting as an irritant by its pressure, and being also well within reach, I resolved upon instrumental delivery and delivered the patient without any difficulty of a living male child. The placenta followed rapidly. The patient had no more fits, passed urine eight hours after the birth of the child, and progressed favourably, the urine remaining albuminous for about three days. Both child and mother are now doing well.

CASE 3.—This patient resembled Case 1 in every respect. I treated her in the same manner and was successful in delivering her of a living child. Both mother and child progressed favourably.

CASE 4.—The patient, a rather anæmic young woman with a good previous history, was taken in a fit four days after the birth of her first child, which was born without the aid of a medical man. The temperature was normal and the lochia were healthy. The urine was albuminous. There was no rupture of the perineum. The fits occurred at regular intervals and the patient remained in a semi-comatose state between them. I gave her full doses of chloral by the

rectum and administered chloroform and injected pilocarpine hypodermically. This treatment benefited the patient, especially the administration of chloroform, which kept the seizures well under control. She had no convulsive seizures for about a couple of hours after the administration of chloroform had been stopped. I then left her to see another urgent case and returned just in time to see the patient in a violent general convulsion in which she died (probably asphyxiated).

Certain points are worthy of note in these cases: (1) the disregard the majority of patients pay to the premonitory symptoms, sending for medical aid only when the eclamptic seizures come on; (2) the value of instrumental delivery and the induction of premature labour in certain cases of puerperal eclampsia; (3) the value of chloroform in controlling the fits; (4) the appearance of albumin in the urine of all four patients and its complete disappearance three or four days after delivery in the first three cases; and (5) the fact that all four patients were primiparæ.

A CASE OF SPASMODIC DYSPNŒA.

BY J. E. S. BARNETT, F.R.C.S. ENG.

THE patient in the present instance was a male child who soon after birth began to suffer from attacks described by his mother as "grunting and blue all over." When he was three and a half months old I saw him and learned that the fits were becoming more frequent and enduring. His breathing was laboured, with suprasternal and subcostal recession during respiration, locomotion of the larynx, and action of the nares. During an attack these symptoms were intensified and in addition cyanosis became marked in the lips, face, and finger-nails. In the intervals there was free but noisy entrance of air into both lungs. The temperature was 97·8° F. in the groin, the heart sounds were normal, and the apex was in the natural position. The child was unusually fat and big for his age and he took his mother's breast well. The fits became more severe, threatening dissolution, and the mother was anxious that something should be done. Treatment by hot fomentations and by a steam-kettle under a tent proved useless. Papilloma and spasmodic catarrhal laryngitis were thought of as possible conditions. Tracheotomy was performed on March 17th, 1898, the infant being then four months old. No difficulty was experienced except in the introduction of the tube; the smallest vulcanite was used. There was no marked immediate relief, but next day the breathing was less laboured, and although the fits persisted the cyanosis was lessened and for the next day or two was absent. No œdema, emphysema, or suppuration occurred about the wound and the child's condition improved; his temperature remained normal throughout except for a rise to 100° on one evening. When the vulcanite tube was removed it was replaced first by a Parker's and afterwards by a Morrant Baker's rubber tube. Three weeks after the tracheotomy the child suffered from a prolonged attack of dyspnœa, became gradually more and more cyanosed, and eventually died. At the post-mortem examination it was found that the thymus gland was enlarged and that outlying lobules of gland tissue extended well into the root of the neck. Perhaps the recurrent laryngeal nerves were irritated and set up spasm of the larynx which the tracheotomy relieved, but the gland still growing caused direct and fatal pressure on the trachea. From the appearance of the parts when the deep fascia was divided this pressure must have been considerable. There was neither ulceration of the trachea nor papilloma of the larynx.

Paddington.

A CASE OF SHINGLES OCCURRING PRINCIPALLY ON THE SCAR OF A BURN.

BY HERBERT FREDERICK, L.R.C.P. LOND., M.R.C.S. ENG.,
LATE ASSISTANT HOUSE SURGEON TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

THE patient in this case was a boy, nine years of age, who came under my care on Dec. 6th, 1897, for well-developed shingles on the left side of the trunk. On Nov. 22nd, 1893, he had an extensive burn on the left thoracic and abdominal regions, owing to his nightshirt catching fire. He was treated as an in-patient at St. Mary's Hospital for eigh weeks. When I first saw the patient I was informed that twelve hours previously—i.e., about 9 P.M. on the previous evening—he had suffered from great pain in his left side which was so severe as to make him scream and to keep him awake during the early part of the night. On examination I found that he was a well-nourished boy with an extensive scar on his left chest, side, and abdomen. The skin was puckered and reddish in colour, with bands of thick fibrous tissue running in all directions. He was suffering from typical shingles on the left side. The rash started from the tips of the eleventh and twelfth dorsal and the first lumbar vertebræ and was continued round the left side in a band varying in breadth from 1½ in. to 3½ in. The greater part of the rash was on the site of the scar, though several groups of vesicles were present on the otherwise healthy skin. Two or three spots were on the right side of the middle line both in front and on the back. The rash presented nothing atypical; it was confluent in places and pain of a neuralgic character was present with considerable intensity. The child seemed to be poorly and his appetite was bad. His mother told me that he had been "out of sorts" for the last few days. During the nights of Dec. 6th, 7th, and 8th he could only sleep lying on the left side—the side of the lesion. The treatment consisted in protecting the side with absorbent wool and in giving tincture of perchloride of iron internally; 3 grains of calomel were given on the nights of the 6th and 7th, followed for a week afterwards by 3-grain powders of mercury with chalk at bedtime. The disease ran the usual course and recovery took place without any unusual symptoms. The neuralgic pain disappeared completely on the 10th.

The interest of the case seems to lie in the following points. It is not often that one comes across a case of shingles occurring on the site of such an extensive burn. Personally I have never seen one before, nor have any of my medical friends to whom I have detailed the case. From the nature of the scar it is evident that the skin over the burnt area must have been pretty thoroughly destroyed down to the deeper layers of the dermis and consequently the nerve terminations must have been destroyed too. The few spots occurring on the right side of the median line both on the back and front demonstrate very prettily the overlapping of the nerve-supply in those regions. This point is noted by Fagge,[1] but the case negatives his assertion that "pain of a neuralgic character is entirely absent in young patients." The mother put the child to bed herself and is certain that no spots were present—in fact, until the morning she thought the pain was due to pleurisy.

Queen's Park, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SEAMEN'S HOSPITAL, GREENWICH.

A CASE OF TRAUMATIC TETANUS TREATED BY ANTITOXIN ON THE SEVENTH DAY AFTER INJURY; DEATH.

(Under the care of Dr. CURNOW.)

ON several recent occasions we have published in "The Mirror of Hospital Practice" reports of cases of tetanus in which the antitoxin has been employed and we gladly print the following cases as it is advisable that as many of these cases as possible should be put on record, for the value of tetanus antitoxin is still debateable. We would not suggest that the antitoxin has no controlling power over the disease for its efficacy in this respect has been abundantly established, but it cannot be said that at present we are in any degree certain of the frequency with which the antitoxin should be given or even of the most suitable dose for any given case. Cases of tetanus vary

[1] Fagge and Pye-Smith: Text-book of the Principles and Practice of Medicine, third edition, vol. ii., p. 939.

greatly in severity and recovery follows even without antitoxin in no very small proportion of cases. The mortality has varied in statistics from 83 to 93 per cent., but as these statistics chiefly refer to pre-antiseptic days it is not improbable that the rate of mortality in recent years would be much less. It is the opinion of many that the treatment with the tetanus antitoxin has not materially modified the death-rate. So far as our knowledge goes at present the most important factor in the prognosis is the length of time which has elapsed from the infliction of the wound to the development of symptoms. The later the spasms appear the better the prognosis. It may also be said that if the patient survives the tenth day of the illness he will probably recover. Kneass[1] says that the mortality in 61 cases which he had collected and which had been treated by antitoxin was only slightly less than that under other treatment, but Marson[2] collected 38 cases treated with antitoxin and of these 25 recovered. For the notes of the case we are indebted to Mr. A. E. Griffin, house physician.

The patient, a seaman, aged fifty-two years, was admitted to hospital on Feb. 14th, 1898. He had been out of work for some months and had been doing odd jobs about the docks. On Feb. 7th, seven days previously to admission, he cut his right thumb when chopping some wood. On the 11th he had some pains in the neck which he attributed to rheumatism. On the 13th he complained of pains in the back and on the 14th on rising he noticed that his neck was retracted and that he was unable to depress his jaw. He was able to swallow at breakfast-time, but later in the day he could not swallow at all. On admission at 4 P.M. his temperature was 98·6° F. and his pulse was 84 and regular. The respiration was normal. His head was thrown back and there was a compensatory curve in the spine. There was complete inability to swallow; he had spasm of the masseters with frequent grinding of the teeth. The muscles of the arms, legs, and trunk were not affected. The patient had walked to the hospital. Both knee-jerks were increased; the plantar reflexes were also increased, but no ankle clonus was present. On the palmar surface of the right thumb there was a superficial abrasion 1 in. in length grimed with dirt, but there was no inflammation or tenderness round the wound. Tetanus antitoxin having been sent for from the British Institute of Preventive Medicine, 10 c.c. were injected into the subcutaneous abdominal tissues at 9 P.M. on the day of admission and at the same time an attempt was made to pass the stomach-tube through a gap in the teeth, but the spasm of the pharynx was so great that the attempt was abandoned, and a simple enema having been administered nutrient enemata were given every four hours. The patient slept from 11 P.M. till 12 P.M. and it was noticed that he sweated profusely. His temperature was then 97·6° and his pulse was 84, strong and full. He had a slight spasm at 2.30 A.M. on the 15th and a somewhat more severe one at 4.30 A.M. When seen the spasm was over and he was lying quite quiet, his pulse being 108. 10 c.c. of antitoxin were injected at 5 A.M. When seen again at 10 A.M. he was sweating profusely; he complained of pain across the chest; the muscles of the neck were firmly contracted; there were occasional spasm of the masseters, with grinding of the teeth, and slight spasm of the back muscles with accompanying rigidity of the chest wall and slight dyspnœa during the spasms, which came on at intervals of about a quarter of an hour. The arms and legs were not affected; he could roll himself over and preferred to lie on the left side. His pulse was regular, 96, and the temperature was 98·2°. He had retained the nutrient enemata. The urine was highly coloured, acid, and of specific gravity 1020; there was a deposit of urates, but there was no albumin. At 2.40 P.M. a third injection of 10 c.c. of antitoxin was given and he was seen about this time by Dr. Curnow. At 4 P.M. the patient was much in the same condition but there was more inclination to spasm of the chest wall, synchronous with the spasm of the head and face muscles. There was no risus sardonicus; during the spasms there was slight rigidity of the arms and abdomen. At 5 P.M. the spasms became more frequent but not more severe. At 5.45 P.M. the patient had a violent spasm but no opisthotonos; after the spasm, which lasted three minutes, the patient's muscles became flaccid, then respiration and pulse gradually failed and he died at 6.5 P.M., the respirations apparently ceasing first. No post-mortem examination was performed.

Remarks by Mr. A. E. GRIFFIN.—Dr. Curnow has kindly given me permission to report the case. It is a matter of regret that I did not push the antitoxin to a greater extent. The patient died while I was in town getting a further supply, but the fact that seven days had elapsed before the patient sought relief greatly militated against a successful result. We were unable to obtain a post-mortem examination, but the wound was excised with the surrounding tissue. Dr. Newman, of the King's College Bacteriological Laboratory, kindly examined the excised portion and has demonstrated the presence of Nicolaier's bacillus. The case is of interest in that there was neither opisthotonos nor risus sardonicus, the pulse was never small and quick, and the temperature was subnormal.

[1] Journal of the American Medical Association, July 18th, 1896.
[2] THE LANCET, Aug. 10th, 1895.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.

THREE CASES OF TETANUS.

(Under the care of Mr. T. P. GREENWOOD.)

FOR the notes of these cases we are indebted to Mr. Stanley Copley, house surgeon.

CASE 1.—A man, aged thirty-four years, was admitted into the infirmary on Dec. 15th, 1897. He had suffered from an ulcer on the right leg for some years. He first noticed that his neck and jaw were stiff on Dec. 11th. When he was admitted he had well-marked risus sardonicus. The jaw was nearly closed and there was marked and continuous opisthotonos and the abdomen was rigid. Both legs were a little stiff; the rest of the body was unaffected. There was a very foul ulcer of a chronic character on the inner side of the right leg. The temperature was 97·4° F., the pulse was 80, and the respirations were 24. He had some spasms, affecting chiefly the back and limbs; there were about six spasms an hour. He was admitted at 1 P.M. and at 2.45 P.M. 3 grammes of Tizzoni's antitoxin were injected. At 3 P.M. A.C.E. mixture was administered, the ulcer was scraped to the bones and its edges were excised freely. The whole raw surface was then cauterised with fuming nitric acid. In the next three hours he had eight spasms. At 6 P.M. another 1½ grammes of Tizzoni's antitoxin were injected. He passed a bad night with very little sleep, being awakened by severe spasms, about ten occurring every hour. During the 16th his condition remained much the same, the spasms averaging ten an hour. He took food well. A gramme of Tizzoni's antitoxin was injected at 9.30 A.M., another gramme was injected at 1 P.M., and 1½ grammes were again injected at 6.30 P.M. He had no sleep until midnight; then 15 grains each of chloral hydrate and bromide of potassium were given and he obtained two hours' sleep. He had on an average seven spasms per hour during the night and on the next day (the 17th) he seemed to be holding his own. The bowels acted freely after an aperient pill. The pulse was rather slower (65). A gramme of antitoxin was administered at 10 A.M. and another gramme at 4 P.M. The bromide and chloral draught was repeated at night and it seemed to have a good effect in reducing the number of the spasms and produced two and a half hour's sleep. On the 18th the left leg was noticed to be stiff, the opisthotonos was more marked, and the jaw was more fixed. A gramme of antitoxin was given at 10 P.M. and between 10 A.M. and 4 P.M. the spasms were reduced to five an hour. From 4 to 10 P.M. the spasms increased in severity and in number (averaging eleven per hour), so 1 gramme of antitoxin was injected at 9 P.M. and at 10 P.M. 20 grains each of bromide and chloral were given. It was noticed that the right inguinal glands were enlarged and tender. The patient passed a bad night, having only one and a half hour's sleep; he had many severe spasms, these averaging eleven an hour. On the 19th the spasms were very frequent and severe. Both legs were rigid and marked opisthotonos was present. The jaw was quite closed. The ulcer was dressed. The slough was separating. The right inguinal glands were enlarged and tender and he declared the spasms started from these glands. At 10 A.M. 10 c.c. of antitoxin from the British Institute of Preventive Medicine were injected. The spasms continued to be severe and frequent; 20 grains each of bromide and chloral were given at midday with no effect and were repeated at 4 P.M. with 20 c.c. of antitoxin (British Institute of Preventive

Medicine). At 6.30 P.M. the patient was in great pain with severe and frequently repeated spasms. He had had sixty-nine spasms since midday. The draught of bromide and choral was repeated at 8 P.M. At 11 P.M. the severity of the spasms was still continuing. A temporary improvement was noticed between 8 and 9 P.M., there being only eleven spasms per hour, but he had twenty-six spasms between 9 and 11 P.M. At 11 P.M. the patient was crying out with pain. A hypodermic injection of morphia (⅓ grain) was given and A.C.E. mixture was administered until the spasms relaxed. The breathing was a little laboured at first under the anæsthetic, but as the anæsthesia deepened it became quiet and he remained so for an hour. The spasms then gradually returned and became very severe between 2 and 3 A.M. (the 20th). Bromide and chloral (of each 20 grains) were given at 4 A.M. and were repeated at 8 A.M. The bowels acted freely between 9 and 10 A.M. after a minim of croton oil had been administered in the form of a pill. From 7 to 10 A.M. great improvement in spasms was noticed, there being on an average only four an hour. After 10 A.M. on the 20th he seemed to be better; the spasms were less frequent, being 3 or 4 per hour. Antitoxin (British Institute of Preventive Medicine, 20 c.c.) was given at 4 P.M. and 10 c.c. at 11 P.M. The administration of bromide and chloral (20 grains of each) was continued every four hours. He slept for short intervals during the day. An erythematous rash appeared on the upper part of the thighs. He passed a restless night, sleeping for two hours only, and the spasms averaging seven or eight per hour. On the 21st the rash was well marked; it consisted of irritable red blotches over the upper part of both thighs, the lower part of the abdomen and the upper part of the arms. Slight icterus was visible. Antitoxin (30 c.c.) was given at 10 A.M. and the bromide and chloral were continued every four hours. The temperature, the pulse, and the respirations kept about normal. The wound on the leg, which since the operation had been dressed with iodoform, was thoroughly washed with formalin solution (1 per cent.) and a compress of the same solution was applied. This was done, as the case gave the impression of its being one in which fresh toxins appeared to be formed from day to day, and it was concluded that all the tetanus bacilli in the wound had probably not been destroyed. Another 20 c.c. of antitoxin were given at 6.30 P.M. He passed a much better night, the spasms being less frequent and less severe. The chloral and bromide were omitted after 3.30 P.M. On the 22nd antitoxin (20 c.c.) was injected at 10 A.M. The patient expressed himself as feeling much easier and the rash was fading. 10 c.c. of antitoxin were given at 2 P.M. Altogether he had a much better day, but he again passed a restless night. The bromide and chloral were given every four hours during the night. On the 23rd antitoxin (20 c.c.) was administered at 7 A.M. The masseters appeared to be relaxing and allowed the little finger to pass between the teeth. The formalin dressing on the leg was reapplied. By 6 P.M. there was decided relaxation of the spasm all over the body and the index finger could be introduced between the teeth. The bromide and chloral were again omitted after 8 A.M. On the 24th the improvement was maintained, the spasms averaging during the day only three per hour; 10 c.c. of antitoxin were given at 10 A.M. He passed the best night since his admission. On the 25th 10 c.c. of antitoxin were given at 10 A.M. He was certainly improving and he had only two spasms per hour during the day. The dressing on the leg was changed to dry gauze dressing. From this date he steadily improved with gradual diminishing stiffness and spasms up to the 30th, when the spasms ceased entirely though some rigidity remained in the legs, the jaw, the abdomen, and the back, rigidity in the last preventing his sitting up. On Jan. 8th, 1898, he was so far recovered as to sit up and walk about, but some rigidity remained in the right leg and in the back. He was discharged on Feb. 1st. The ulcer was healing and looked healthy. There was still some slight stiffness about the back and the right leg. This remained up to the middle of March. No antitoxin was used after 10 A.M. on Dec. 25th, 1897. He had altogether 13½ grammes of Tizzoni's antitoxin and 180 c.c. of antitoxin from the British Institute of Preventive Medicine. His largest dose of antitoxin in one day was 50 c.c. on Dec. 21st, corresponding to the turning-point of his illness. It was thought that this large dose of 50 c.c. enabled his natural forces to gain the upper hand and in another similar case as much would be given at the first dose. The antitoxins did not appear to be as beneficial in controlling the paroxysmal spasms as chloral and bromide. Great relief to these spasms was also obtained by free purgation with croton oil. From the probable source of infection being a chronic ulcer of the leg it was not possible to calculate the incubation period. It will be noted also that the formalin dressing was also applied on the day of most improvement and this may have contributed to the subsequent recovery.

CASE 2.—A man, aged sixty-seven years, crushed his left hand between the wheel of a cart and a wall while he was carting manure on Feb. 23rd, 1898. The hand and wound were very dirty and the wound suppurated subsequently. He first noticed stiffness in his neck on March 1st and he was unable to swallow on the following day. He was admitted into the infirmary at 7 P.M. on the 2nd and it was noticed that the wound on the back of his hand, part of which was held together by two silver sutures, was suppurating and sloughing and that there was a fracture of the fourth metacarpal bone communicating with the wound. The risus sardonicus was marked and the muscles of the neck were stiff. The tongue could just be protruded between the teeth. Opisthotonos was present and the abdomen was very rigid. He was unable to speak clearly and he was quite unable to swallow anything. A C.E. mixture was administered at 9 P.M. and the wound was cleansed, its edges and sloughs were excised and with them the whole of the fourth digit and its metacarpal bone. The wound was thoroughly swabbed with formalin solution (1 per cent.). The patient passed a bad night, having practically no sleep, and as he was quite unable to swallow anything 30 grains each of chloral and bromide were given per rectum at 11 P.M. On the 3rd he was very rigid and stiff and he was quite unable to swallow even the mucus in his throat, which nearly choked him at times. The pulse was 132. There were no spasms or rigidity of the limbs. He was fed every four hours with nutrient enemata and suppositories. He gradually became more and more cyanosed and he died at 1.30 P.M. Unfortunately no antitoxin could be procured in time for this case. It was severe in all its aspects.

CASE 3.—This case did not occur in the infirmary, but it has been thought well to give it in connexion with the two other cases of tetanus. A woman, aged forty-seven years, was first seen on Feb. 16th, 1898, when she complained of pain in the neck and head. Her temperature was 103° F. The case was thought to be one of influenza, but on the next day, the 17th, she had an anxious expression and slight trismus. A foul varicose ulcer was the only possible site for infection from tetanus which could be discovered. On the 18th chloroform was given and the ulcer was excised freely and its surface was cauterised with strong nitric acid. On the 19th the trismus was more marked and 20 c.c. of antitoxin from the British Institute of Preventive Medicine were injected in the morning and another 20 c.c. in the evening. On the 20th the spasms were frequent and painful; the trismus was rather less. A hypodermic injection of morphia (⅓ gr.) was given at night and 20 c.c. of antitoxin were injected in the morning and repeated again in the evening. On the 21st she seemed to be easier and the spasms were less severe; 20 c.c. of antitoxin were given in the morning. The patient died rather suddenly with symptoms of cardiac failure at 8 P.M. No post-mortem examination was allowed. It was thought that the patient was improving under the antitoxin and that the cause of death was cardiac failure of which the origin was not quite clear.

EXETER DISPENSARY.—The annual report of the Exeter Dispensary which has just been issued shows that 6338 patients had been treated during 1897, an increase of 67 on the previous year. Since the institution was founded in 1818 there have been 270,000 patients attended. The financial statement showed that there was an adverse balance of £50.

METEOROLOGY AT SOUTHPORT.—The report of the Corporation Meteorological Observatory for 1897 is a record of most careful and minute work on the part of Mr. Baxendell, the borough meteorologist, and his staff of assistants. The report contains an account of the varying instruments used and a number of very full tables of results. The publication of results of observations such as these on the meteorology of health resorts and watering-places in general must be of great interest as bearing upon certain departments of public health.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Albumosuria in which the Albumose was spontaneously precipitated.

A MEETING of this society was held on April 26th, the President, Mr. BRYANT, being in the chair.

Dr. T. R. BRADSHAW (Liverpool) read a paper on a case of Albumosuria in which the Albumose was spontaneously precipitated. The patient was a man, aged seventy years. There was no history of any previous illness. For nearly a year he had passed turbid milky urine two or three times a week which deposited a copious white sediment which was amorphous and gave the reactions of a proteid. The clear urine passed at other times contained in solution a proteid which gave reactions of an albumose and appeared to be the same body as was precipitated in the turbid specimens. It coagulated at a temperature of from 50° to 60° C. and was partially dissolved again on boiling. Coagulation took place at a lower temperature when the urine was made more acid. Coagulation took place with nitric acid and the coagulum dissolved on heating and came back on cooling. Coagulation was also brought about by hydrochloric acid and sulphuric acid. A detailed description was given of the characters of the urine. Dr. Bradshaw thought that spontaneous precipitation depended on variation in the quantity of the other constituents of the urine. Five cases reported by previous observers, in which a substance resembling that here described was found in the urine, were quoted. The present case was apparently unique in respect that the albumose was precipitated in the urinary passages. In several recorded cases the condition had been associated with disease of bones and bone marrow. Dr. Bradshaw's patient also showed kyphosis and immobility of the lower vertebræ, but the exact character of the disease in the bone was not yet evident.

The PRESIDENT thanked Dr. Bradshaw for his interesting communication. He was particularly interested in the surgical questions raised and from the appearance of the photographs he could not help wondering whether the case could possibly be one of osteitis deformans.

Dr. SIDNEY MARTIN said that some years ago he had had the opportunity of investigating a similar case in which there was spontaneous precipitation of albumose. The patient was a woman who was under the care of Dr. H. R. Spencer for an ordinary multilocular ovarian tumour which was removed. Soon after she began to pass albumose, the urine being milky, and at first it was supposed to be a case of chyluria. No bone disease was detected, but there was hypertrophy of the left ventricle and other signs of chronic renal disease. He agreed that there should be a distinction between these cases and those in which a small quantity of albumose appeared in the course of fevers. He was not inclined to lay very much stress on the exact form of albumose present, as the different albumoses—hetero-, proto-, and deutero-—formed a progressive series between albumin and peptone. The substance met with in the urine in cases like Dr. Bradshaw's was usually spoken of as hetero-albumose, but it differed from true peptic hetero-albumose in not being dialysable. It differed from deutero-albumose in being redissolved after coagulation in a 0·2 per cent solution of caustic soda. Further observations were necessary to show whether the body more closely resembled proto-albumose or the forms more allied to peptones. It had been supposed by some that the substances were formed by the action of pepsin in the urine on albumin, but there was hardly time for such a change to take place. In the cases associated with multiple new growth the rapid degeneration of the cells led to the formation of proteids which could not be used within the body and were excreted. A similar albumose to that found in the urine in these cases could be obtained by boiling splenic extract with caustic potash.

Dr. H. D. ROLLESTON asked whether the blood serum had been examined. Fifteen months ago Chataigne had described cases in which the blood serum was lactescent, the condition being specially associated with parenchymatous degeneration of the renal epithelium and met with also in cases of chylous ascites. With regard to the association with bone disease he mentioned a case of multiple myelomata recently reported in the *Journal of Pathology* by Dr. Parkes Weber. In that case there were homogeneous patches seen in microscopic sections of various organs which were possibly albumose precipitated by the hardening reagents.

Dr. LEE DICKINSON had met with both proto- and deutero-albumose in the urine of patients suffering from pneumonia, in some cases as much as 1 per cent. The cases were always marked by severe symptoms, depression, low tension pulse, and hæmorrhagic tendency, similar to what was observed on injection of mixed albumoses into the blood of animals. Virchow and others had shown the presence of albumose in the marrow in cases of fragilitas ossium. Thus this substance must traverse the body before being excreted by the kidney.

Dr. BRADSHAW, in reply, said that after careful examination of the patient no sign of osteitis deformans could be detected. It had been suggested that the spinal changes might be due to senile caries and a case of senile caries had been mentioned to him in which there was milky urine. But there was no necropsy in that case and it was possibly not caries. It had only been recognised of late years that many of the cases of fragilitas ossium were really cases of multiple sarcoma of bones, and he thought that it was probable that the case under the care of Sir Thomas Watson which had become classical through the investigation of the urine by Dr. Bence Jones was of this nature, and it was to this category that he would provisionally refer his own case.

MEDICAL SOCIETY OF LONDON.

Some unusual Cases of Renal Calculus.—Central Galvanisation in Cardiac and other Neuroses.

A MEETING of this society was held on April 26th, Dr. HOLMAN, Vice-President, being in the chair.

Mr. W. H. BATTLE read a paper on Some Unusual Cases of Renal Calculus, which will be found on page 1180 of this issue of THE LANCET.—Dr. HOLMAN recalled the days when there was intense antagonism to abdominal surgery and referred to the rapid strides which renal surgery had made. He detailed one case in which renal calculus had occurred in a patient who also had myxœdema. She rapidly responded to thyroid treatment, but pain began in the right kidney, and this had been preceded for some years by hæmaturia and pus in the urine. In July, 1897, as these attacks were more frequent and acute, and there were symptoms of blocking of the ureter followed by pyonephrosis, the kidney was incised and a large quantity of pus was evacuated, but no stone was found. Recently, however, he had been able to pass a probe down the ureter and could feel a stone, which he hoped might be extracted later.—Mr. BRUCE CLARKE referred to the necessity of passing some instrument down the ureter at the time of the operation. In several cases he had succeeded in finding a stone by this means, employing for the purpose a black rubber bougie, which could often be passed down as far as the brim of the pelvis. He thought that the excessive hæmaturia was due partly to the character of the stone and partly to its position.—Mr. MARMADUKE SHEILD asked what was Mr. Battle's experience as to the value of the x rays in determining the presence of a calculus. The chief difficulty in diagnosis was in the discrimination from renal tuberculosis He asked whether Mr. Battle had ever employed the inoculation test. In one case under his care some of the urine from a doubtful case had been injected by a pathologist into the peritoneal cavity of a rabbit and gave rise to typical tuberculosis.—Mr. BATTLE, in reply, said that in one of his cases he had attempted to probe the ureter during the operation, but owing to the disturbance of parts he could not find the opening of the ureter. Hæmaturia was very variable. It was greater in the case quoted, in which there was a smooth phosphatic coating, than in the case where there was a spiny surface. No doubt this was due to closer attachment of the latter. His experience with the x rays led him to believe that, though occasionally successful, skiagraphy could not be relied on. He had no personal experience of the method of making inoculations for diagnostic purposes.

Mr. WILLIAM ARMSTRONG (Buxton) read a paper on the Therapeutic Value of Central Galvanisation in Cardiac and other Neuroses. He drew attention to four factors which had tended to discredit the use of galvanism to the higher nerve centres: (1) want of precision in application and failure to estimate the exact dosage administered; (2) use as a last

resort in hopeless cases; (3) extravagant claims made for it; and (4) the blatant quackery which has so often been associated with it. He contended that it had only a limited field of usefulness, like any other remedy, but that within those limits its effects were definite and fairly certain. The physiological effects were threefold—stimulating, sedative, and tonic. The stimulating effect was immediate, the sedative quickly followed, and the tonic came on more slowly. The most important effect was upon nutrition. During the passage of the current through the body heat was generated, substances were transferred from one pole to the other, endosmosis and exosmosis were modified, and there was a marked acceleration of the process of oxidation. Secretion was largely influenced, as was excretion, especially in those gouty cases where there was deficient excretion of urea and uric acid. The structures mainly influenced by this method were the medulla, the pneumogastric nerves, and the sympathetic system. The various methods of application were discussed, preference being given to the "Rockwell," in which the kathode was applied to some indifferent part to avoid vertigo and nausea. The necessary appliances were described and stress was laid upon the need for a good galvanometer and rheostat. The strength of the current and the duration of the sittings were detailed. The applications should neither be too long nor too strong and attention was drawn to the following symptons which showed need for special care: headache, insomnia, nausea, over-excited pulse, and prolonged reaction of the nerves of special sense. Cases presenting the following symptoms were considered as suitable for treatment, but stress was laid upon the necessity for elimination in the first instance of all reflex sources of irritation, especially in cases of cardiac neuroses, migraine, and spasmodic asthma: (1) cardiac and gastric neurosis; (2) neurasthenia and hypochondriasis; (3) cerebral exhaustion; (4) migraine; (5) exophthalmic goitre; (6) Raynaud's disease; and (7) spasmodic asthma. The therapeutic effects noted were a feeling of better health, an increase in brightness and clearness of thought, an improvement in appetite and digestion, and a marked decrease in the formation of indican, skatol, cresol, and oxalates. Sleep was markedly increased and was more calm and peaceful. The action of the heart became more regular, anginoid pains were relieved, the rapid pulse became slower, and the unstable nerve centres were steadied so that they were not so readily acted upon by reflex causes, such as flatulence, absorption of toxins, &c. Neurasthenia benefited largely, the vicious circle formed by the instability of the nerve centres and the abnormal products of deranged digestion being broken through. Details were given showing excellent results achieved in cases of cardiac neuroses, neurasthenia, cerebral exhaustion, exophthalmic goitre, migraine, Raynaud's disease, spasmodic asthma, "dry tongue," and diabetes insipidus.—Dr. G. HEBSCHELL said that he had used central galvanisation for ten years and could confirm what had been said as to its beneficial results. It was particularly valuable in relieving that class of neurasthenic patients in whom there was auto-intoxication. In such cases he, in addition, washed out both the stomach and the lower bowel. In applying the current he did not send it through the brain, but applied the positive pole to the nape of the neck and the negative pole to the epigastrium for ten minutes. He afterwards removed the electrode from the nape of the neck and placed it over the sympathetic ganglia in the front of the neck. He avoided the use of a dual collector on his battery, as the sudden changes in the strength of current produced by it caused vertigo He used a special graphite rheostat made by the Chloride of Silver Dry Cell Company of Baltimore. Patience was required, as much good was rarely seen until after from ten to fifteen sittings, but, on the other hand, treatment was rarely necessary for more than five weeks. He had seen galvanisation arrest the paroxysms of spasmodic asthma.—Dr. LEWIS JONES said that the value of general galvanisation had been rather lost sight of for some years. It was of the greatest value in the treatment of various disorders of nutrition and the effects could be particularly well seen in rickets, chilblains, and Raynaud's disease. He preferred to apply it in the form of an electric bath, using sinusoidal currents from the main. He had never seen any permanent benefit from its use in exophthalmic goitre.—Dr. ABRAHAM observed that central galvanisation and electric baths were very different things. He thought that central galvanisation had been largely abandoned in favour of D'Arsonval's method of currents of high intensity. He asked what was supposed to be the advantage of stimulating the cilio-spinal centre in connexion with cardiac neuroses.—Dr. HEDLEY confirmed the value of the treatment. He remarked that the high frequency currents which had been referred to were still on their trial, but he himself expected great things from them.—Mr. ARMSTRONG, in reply, expressed his great pleasure that Dr. Herschell, Dr. Lewis Jones, and Dr. Hedley concurred in the general principles he had laid down, although their modes of application differed somewhat from the one he had used. His experience confirmed that of Dr. Lewis Jones concerning the use and the value of the sinusoidal bath in rickets and chilblains. Dr. Abraham, in accusing them of using methods as diametrically opposed as a Turkish bath and a cold bath, must surely have forgotten that there was such a thing as reflex impression conveyed from the peripheral nerves and from the spinal sympathetic ganglia to the brain. Dr. Lewis Jones with his electric bath used the former method and Dr. Herschell the latter. With regard to the smallness of dosage in central galvanisation compared with that of the D'Arsonval current it must not be forgotten that in the former the whole current passed through the centres. In the latter probably but a small portion reached them and that indirectly. The suggestion that the best continental methods were neglected in England was disproved by the fact that he himself was largely using the sinusoidal current mentioned, but while he had found it most valuable in many cases it was much inferior to the central treatment in the class of case under discussion. The alleged uselessness of galvanisation of the cilio-spinal centre was at least open to argument, but he considered that as excitation of this point was so conducted to the cervical sympathetic as to cause dilatation of the pupil it at any rate seemed to point to a method of influencing that important part of the nervous system, and several competent observers have reported definite therapeutic effects following application to that centre only.

CLINICAL SOCIETY OF LONDON.

Renal Calculus.—Thrombosis of the Superior Mesenteric Vein.—Tuberculous Peritonitis with Thrombosis of the Mesenteric Vein.—Raynaud's Gangrene after Parturition.

A MEETING of this society was held on April 22nd, the President, Mr. LANGTON, being in the chair.

Dr. FREDERICK TAYLOR and Mr. ALFRED D. FRIPP related a case in which a Renal Calculus was detected by the Roentgen rays and successfully removed. The patient was a male, aged twenty-six years. He was admitted into Guy's Hospital on Sept. 8th, 1897, under Dr. Taylor. There was a history of mild attacks of colic for nine years, and the symptoms and signs while in hospital pointed clearly to the diagnosis of a right renal calculus, but Mr. Fripp was unable on Oct. 18th to detect it in the kidney through the usual lumbar incision. A week later, guided by a skiagram, he was able, by reopening the wound and removing part of the twelfth rib, to reach and remove the stone from its abnormally high position. It weighed exactly half an ounce and was of the size and shape of the distal segment of a small thumb. It was surrounded by a cyst consisting partly of the pelvis of the kidney and partly of atrophied kidney substance. This was removed as well. The patient made an uninterrupted recovery and has since resumed the active life from which he had been debarred for nine years by the colic. The points of interest in this case were (1) the indication given by a skiagram of the position of a renal calculus that had previously escaped detection by the lumbar exploratory operation; (2) the abnormally high position of the stone—above the twelfth rib, though on the right side; (3) the fact that the twelfth rib had its deep surface covered to a large extent by pleura, even on the right side; and (4) the completely atrophied condition of the kidney.—The PRESIDENT said that the symptoms appeared to be classical except for the absence of hæmaturia. Although he himself had never been able to detect a renal calculus by skiagraphy he had in one instance obtained a definite shadow from a calculus in the upper part of the ureter.—Mr. MAKINS said that there appeared to be great difficulties in obtaining successful skiagrams. Even so skilful an operator as Dr. Barry Blacker had failed repeatedly and in one case in which there were 16 calculi in a kidney no indication of them was revealed on the plate. Although, therefore, positive results were most valuable it

would be long before the existence of renal calculus could be excluded by this method.—Dr. BARRY BLACKER said that he had examined many dozens of supposed cases of renal calculus by this method, but had only been able to suggest the presence of a calculus in three.

Dr. BRADFORD read an account of a case of Thrombosis of the Superior Mesenteric Vein causing Intestinal Obstruction. A man, aged twenty years, was admitted into University College Hospital on Aug. 26th, 1897, complaining of pain in the abdomen and slight diarrhœa. Illness began on Aug. 20th with vomiting and abdominal pain and the diarrhœa did not appear until Aug. 23rd. On admission the diarrhœa had ceased, but there was considerable pain referred to the umbilicus and there was repeated vomiting of congulated milk. The bowels were opened by an enema and the stools contained no blood or mucus. The abdomen was resonant all over and nothing abnormal was detected on examination. The respiration was rapid and jerky, the pulse was 96 the temperature was 101° F., and the lips were covered with sordes. The patient remained in much the same condition until Sept. 1st, when the abdominal pain became more severe and the vomiting became more frequent. The bowels were opened by an enema. On Sept. 2nd the vomited matter became distinctly stercoraceous and an indefinite mass could be felt in the left iliac region. A few fæcal masses were passed as a result of enemata but flatus was passed freely. On Sept. 3rd the abdomen was opened in the middle line by Mr Pollard and a distended coil of small intestine was drawn out of the wound; this was purple in colour and greatly swollen and thickened. There was no volvulus and no constricting band was found. The wound was rapidly closed and the patient succumbed shortly after the operation. On post-mortem examination no band or other cause of strangulation was found. The mesentery was thickened and the veins in it were thrombosed; a portion of the jejunum some 18 in. long was greatly swollen and thickened. The superior mesenteric artery and all its branches were normal. The splenic vein was normal. The trunk of the superior mesenteric vein was greatly thickened and the lumen of the main vessel was filled with reddish puriform material. The upper part of the vein was blocked by firm decolourised clot. The disease of this vein extended into the main tributaries of this vessel, but most of the terminal branches had their walls of a normal thickness and appearance, and some of these were free from clot, although the trunk into which they opened was thrombosed. The upper part of the portal vein was healthy. The mesenteric glands were enlarged and congested and one of them lying on the lowest branch of the vein was enlarged and suppurating, and the abscess cavity communicated with the interior of one of the thrombosed veins.—Dr. FREDERICK TAYLOR said that some years ago he had brought before the Pathological Society a case somewhat similar to that described by Dr. Bradford except that in his case it was the artery and not the vein which was thrombosed.—Dr. LUCAS BENHAM asked what medical treatment was adopted and whether hiccough was a prominent symptom.—Dr. TOOGOOD had had a case under his care at Lewisham Infirmary exactly like that described by Dr. Bradford. The symptoms simulated intestinal obstruction, but on opening the abdomen the state of things was made clear. In that case there was not only blood in the peritoneal cavity but also in the mesentery. —Mr. MAKINS had once been called in to operate on a case which proved to be one of thrombosis of the superior mesenteric artery. In this case the onset of symptoms was sudden and not slow as in Dr. Bradford's venous case. The question had been raised whether thrombosis of the artery would lead to gangrene owing to the very free anastomosis of its branches. He reminded the society that last year Mr. Lockwood had read an account of a case[1] in which gangrene occurred from a stab which severed a branch half an inch from the bowel. Probably, however, the anatomical conditions in that case were exceptional.—Mr. FRIPP asked whether it was likely that inflammation had spread from the pancreas to the vein, which passed close by it. Recently there had been a little epidemic of acute pancreatitis, judging from the number of cases brought to Guy's Hospital. In several of them the symptoms during life were those of intestinal obstruction.—Dr. ALFRED HILLIER asked whether the condition of the veins might not have been secondary to some condition of the intestine.—Dr. BRADFORD, in reply, said that the treatment had been palliative only, as the nature of the illness was not recognised.

Mr. RAYMOND JOHNSON reported a case of Tuberculous Peritonitis in which symptoms of Intestinal Obstruction resulted, probably from Thrombosis of certain Tributaries of the Superior Mesenteric Vein. The patient, a woman, aged thirty-three years, who had been ailing for a month, was attacked with sudden abdominal pain four days before her admission to University College Hospital. Vomiting occurred repeatedly, and the bowels failed to act in spite of aperient medicines. On admission the patient presented in a marked degree the abdominal aspect; the tongue was dry and the pulse was rapid; the abdomen was slightly distended and uniformly slightly tender; there was impaired resonance in the left flank, but no tumour could be detected and the pelvic viscera appeared to be normal. The diagnosis of intestinal obstruction was made, but no evidence was forthcoming to indicate its exact nature. On opening the abdomen several ounces of clear fluid escaped and yellow tubercles were seen to be scattered sparsely over the intestines. No kinking or twisting of the bowel could be detected, but a solid mass was felt, which proved to be a fan-shaped portion of the mesentery much thickened and deeply congested. The corresponding eight inches of the intestine was much more congested and swollen than the rest and the tuberculous nodules more abundant over it than elsewhere. The whole length of the small intestine having been examined without finding any further cause for the symptoms the abdomen was closed. The patient was at first fed entirely by the rectum, but after a slight action of the bowels on the day following the operation liquid food was given in small quantities by the mouth without any return of the sickness. At the end of three weeks the patient was able to leave the hospital. The explanation was offered that the condition of the mesentery and bowel resulted from thrombosis of some of the branches of the mesenteric vein caused by the deposit of tubercle around them and that the symptoms of intestinal obstruction resulted from a temporary paralysis of that part of the intestine the circulation of which was interfered with. The case was reported as possibly affording an explanation of the occurrence of acute symptoms during the course of tuberculous peritonitis independently of the ordinary conditions occasioning intestinal obstruction.

Dr. LEE DICKINSON and Dr. W. A. HUBERT read a paper on a case of Raynaud's Gangrene in connexion with Parturition. The case was that of a woman, aged forty-two years, in whom Raynaud's disease set in severely on the second day after parturition but who had had slight attacks during her pregnancy. The fingers and toes were the parts chiefly affected and almost the whole of the ungual phalanges of both hands became gangrenous. There was intense pain in the affected parts. No ergot had been taken. The attack came on without any general or local exposure to cold and was evidently determined by the final strain of parturition after a pregnancy which had been attended by circumstances of privation and ill-health. The patient was suffering from chronic nephritis with hæmaturia and was very anæmic. A second case in which Raynaud's gangrene followed parturition was briefly described and reference was made to two others, one described by Raynaud and the other by Begg in THE LANCET, Sept. 17th, 1870. In the four cases, although ergot was given, it was in small quantities. The influence of conditions of debility, such as that from malaria, anæmia, and hardship, was referred to.—Dr. LUCAS BENHAM asked if there were any septic condition following the confinement in either of the cases referred to.—Dr. DICKINSON, in reply, said that there was no history of any septic trouble and very little ergot had been taken.

[1] See THE LANCET, May 22nd, 1897.

HARVEIAN SOCIETY OF LONDON.

The Treatment of Epilepsy in Epileptic Colonies.—Oöphorectomy for Inoperable Cancer of the Breast.

A MEETING of this society was held on April 14th, Dr. JAMES F. GOODHART, the President, being in the chair.

Dr. ALDREN TURNER read a short paper upon the Treatment of Epilepsy in Epileptic Colonies. He referred to the success which had followed the establishment of these institutions in Germany and pointed to the development of this system in America and in England. The epileptic colony at Chalfont St. Peter, Bucks, to which attention was

especially drawn, was founded for the purpose of giving employment to those epileptics, both male and female, who, by reason of their disease, were unable to obtain work or who were discharged from remunerative posts on account of epilepsy. The experience of the colony during the four years of its existence pointed to the fact that the younger the epileptic and the sooner he is admitted after the onset of the seizures the more satisfactory is the result of the general management and *régime* adopted. The principles which direct the management are simple: (*a*) removal of the epileptic from the town to the country; (*b*) regular employment under direction; (*c*) the maintenance of a well-ordered and regular mode of life, with avoidance of excitement and abstinence from alcoholic liquors; and (*d*) abundance of good nourishment of a simple nature. The general result is that the fits in the majority of cases diminish both in number and severity, in some cases to quite an extraordinary extent; the physical health materially improves, while the mental condition in all but a few cases shows obvious improvement.—The PRESIDENT alluded to the beneficial effects which followed admission of epileptics to ordinary hospitals. Some were sent in as suffering from Jacksonian epilepsy and as being in urgent need of operation; but the fits would cease or subside in frequency and severity so long as the patient remained in hospital, although medicines were almost entirely withheld. He mentioned the difficulty of treating epilepsy occurring in those past middle life and instanced the case of a man who after being a great sportsman all his life had become epileptic. He would often be seized by a fit whilst out shooting and would lie down until the attack passed off and then resume his sport. He (Dr. Goodhart) had taken the responsibility of allowing the patient to continue his favourite pursuits in spite of the obvious danger entailed, thinking that the danger to general health would be still greater were the patient to forego the mode of life to which he was accustomed.—Dr. LEONARD GUTHRIE asked whether any provision was made at Chalfont St. Peter for the treatment of epileptic children. He considered that systematic moral training of these—which they rarely got at home—was of the highest importance to themselves and to the community, and it could best be carried out in such colonies as had been described.—Dr. KNOWSLEY SIBLEY remarked that after hearing the paper it had very forcibly struck him that the improvement, both as to the frequency and strength of the fits noticed in so many patients shortly after admission to the epileptic colony, might be the result of the removal of alcohol. His hospital experience had taught him that a large number of epileptics drank more alcohol than was good for them and in many cases they were easily influenced by comparatively small quantities. Undoubtedly the exciting cause of many of the fits was alcohol. The fact that on admission to the colony all alcohol was withdrawn from the epileptics' daily *régime* suggested a probable explanation of the improvement noticed. Dr. Sibley also spoke on the question of drugs and the doses employed.—Dr. TURNER, in reply, agreed that it was most important to deprive epileptics of alcoholic liquors. The question of receiving children at the colony had already engaged the attention of the governors, but there was difficulty in deciding how long they should be kept and what to do with them afterwards.

Mr. WATSON CHEYNE read a paper on two cases of Oöphorectomy for Inoperable Cancer of the Breast. The first patient, a woman, aged thirty-four years, was admitted to King's College Hospital on Oct. 23rd, 1896. Three years previously a cancerous tumour had been removed from her right breast. A year later some enlarged glands were removed from the right axilla. Three weeks before admission to hospital she felt pain along the old scar and noticed an ulcer in the mid-axillary line. On admission this ulcer was of about the size of a shilling, with considerable induration and redness of the skin around. A large, tender, hard mass adherent to the chest wall occupied almost the whole of the right axilla. There were also numerous enlarged glands in the posterior triangle of the neck, but there was no evidence of internal deposits. It was impossible to attempt complete removal of the disease and so with the patient's consent Mr. Watson Cheyne removed both ovaries and tubes on Oct. 28th, 1896. On March 16th, 1897, about four and a half months after the operation, a great deal of the infiltration had disappeared, the ulcer had shrunk to the size of a threepenny-piece, the mass in the axilla was distinctly smaller, softer, and freely moveable, the glands in the neck were very much fewer, they were only about of the size of split peas then, and the larger ones had entirely disappeared. By June 4th, however, there was again distinct increase in the size of the growth and reappearance of the large glands. In March, 1898, the ulcer had spread from the anterior to the posterior border of the axilla and was 1½ in. broad. There were a nodule on the pectoral muscle, a large mass on the axilla, and glands in the neck, one of them of the size of a walnut. The patient suffered great pain and had to have frequent doses of morphia. The second case, a woman, aged thirty-three years, was admitted to King's College Hospital on May 23rd, 1897, with cancer affecting both breasts. It was clearly a case in which no radical operation could be performed with any chance of success. Accordingly on May 26th both ovaries and tubes were removed. By June 19th there was thought to be slight improvement, but this was not maintained. Her condition steadily grew worse, internal deposits in the liver and probably also in the pleuræ appeared, and she died towards the end of October. In the first case oöphorectomy appeared to have had a marked effect on the growth of the cancer at first, but at the end of six months the disease began to grow again and since had made great strides. Mr. Watson Cheyne held it clear that there is a distinct connexion between the normal epithelium of the breast and the ovaries and also between cancerous epithelium of the breast and the ovaries. But unfortunately in all the cases it appeared that the effect of the removal of the ovarian influence is only more or less transitory, whilst in many cases no effect is produced at all. In future cases it might be well to remove at the same time as the oöphorectomy, or possibly later, as much of the noticeable disease as possible.—Mr. HAROLD STILES of Edinburgh said that those who had had the opportunity of seeing Dr. Beatson's first case felt that his treatment was based on well-established scientific fact. But, unfortunately, in no case had the patient been permanently freed from the disease by removal of the ovaries. Dr. Beatson a few days previously had given him (Mr. Stiles) an opportunity of seeing his first case, in which, after complete disappearance of the disease for several months recurrence had become manifest. In the Edinburgh Royal Infirmary Dr. Beatson's treatment had been carried out by more than one surgeon with the result that in some cases the disease had been temporarily arrested, whilst in others it had been uninfluenced.—Mr. ALBAN DORAN noted that Dr. Beatson laid down a rule of treatment which was that a cancerous breast should be removed early and if recurrence took place the ovaries should be taken away, the thyroid treatment being also necessary if the patient were near the menopause. Dr. Beatson admitted that his treatment was useless if secondary deposits had developed. If the greatest amount of good be sought it is clear, Mr. Doran insisted, that each ovary must be completely removed. He knew from experience that to do so and leave a safe pedicle was not always easy even if both ovary and uterus were normal. He described his method of removing ovaries for the relief of fibroids; the ovarian ligament was transfixed close to its uterine attachment. Unfortunately the stump of that ligament sometimes contained ovarian tissue. In Stanley Boyd's fourth case, where the patient was over sixty years of age, the ovaries had undergone extreme atrophy. Their removal for the suppression of an influence which they had ceased to exert naturally proved useless. Altogether Mr. Doran was not surprised to hear of the ill-success of oöphorectomy in inoperable cancer since he was never certain that all ovarian tissue could be removed nor were the advocates of the method certain that perfect extirpation ensured perfect cure. The mere operation might cause somehow the temporary arrest of the cancer, just as abdominal section was sometimes followed by parotitis without evidence of sepsis.—Mr. MALCOLM said there seemed to be little doubt that a simple exploratory incision into the peritoneal cavity was occasionally followed by a temporary diminution of size of a malignant abdominal tumour. The improvement of cancerous mammary growths after oöphorectomy appeared to be also temporary and did not always follow this operation. It had occurred to him that the cause of the improvement in these two cases might be similar although as yet unexplained.—Mr. WATSON CHEYNE, in reply, said that in his two cases he had completely extirpated the ovaries and was certain that no ovarian substance was left behind. He thought that the disappearance of lumps in the abdomen which had been mentioned was accounted for by their being

inflammatory and not malignant. It was difficult to explain the good results which occasionally followed simple laparotomy. He alluded to Dr. Lauder Brunton's recent advocacy of laparotomy in cases of pulmonary phthisis.

HUNTERIAN SOCIETY.

Exhibition of Cases.

A MEETING of this society was held at the London Institution on April 13th, the President, Mr. COTMAN, being in the chair.

The following cases were exhibited:—

Mr. JOHN ADAMS: 1. A child with an Extensive Scar on the Face and loss of the Digits of both Hands except the Left Thumb. There was no history of the case and the exhibitor attributed the lesions to Raynaud's disease. 2. A girl, aged eighteen years, with Congenital Heart Disease. There had been no hæmoptysis and the area of cardiac dulness was very wide on the right of the median line.

Sir HUGH BEEVOR: Two cases of General Alopecia which had been treated with Thyroid extract; in both instances marked improvement had occurred.

Dr. F. J. SMITH: Two cases of Primary Myopathy affecting the Legs of young men. There were no sensory disturbances and the electrical reactions were normal in quality though diminished in quantity. No reaction of degeneration. There was no family history of any similar disease.

Dr. SEQUEIRA: A case of well-marked Pseudo-hypertrophic Paralysis in a child; and a boy, aged seven years, with symptoms of Cerebellar Tumour.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Sanitary Supervision of Elementary Schools.

A MEETING of this society was held on April 15th, Dr. EDWARD SEATON, President, being in the chair.

Dr. REGINALD DUDFIELD read a paper on the Sanitary Supervision of Elementary Schools with Special Reference to the Spread of Infectious Diseases. There was no denying the general overcrowding of these schools which was favoured by the regulations of the Education Department. The superficial and cubic space per head required for calculating the accommodation of a school was far too small; while 350 cubic feet was the lowest allowance in factories 120 was fixed by the Department for schools, which to maintain a purity of 0·2 per 1000 of CO^2 would demand a renewal of the air twenty-five times in the hour. But even this scanty allowance might be curtailed under certain conditions. This was dependent on the interpretation of the expression "habitual" in Clause 73 of the Code, which stipulated that the average attendance should not habitually exceed the legal accommodation by more than 15 per cent. The intention was to avoid the exclusion of a child from the appropriate class pending redistribution and the drafting of the number in excess to other classes. Memoranda and instructions had been issued interpreting the expression so as to discourage overcrowding, but it was evident that the teachers took it as permitting serious overcrowding during certain months to compensate the scanty attendance in others so long as the *average for the whole year* did not exceed the accommodation by more than 15 per cent., a practice to which the payment to the head teachers of a proportion of the grants still retained in many voluntary schools was a strong inducement. It was, however, clear from Mr. Acland's explanation that the permission extended only to the temporary and unavoidable overcrowding of particular class-rooms which it was the duty of the teacher to relieve as soon as possible by drafting the scholars or redistributing the classes and to occasional aggregations of the children in the principal hall or otherwise. Inadequate, however, as was the cubic space in the schools the conditions of many of the homes were no better, and the gravity of the matter lay rather in the influence of overcrowding on the spread of diseases, among which measles, not notified, widespread, highly infectious, and causing on the whole more deaths than scarlatina and several other fevers put together, was that which had the greatest influence on the attendance, and led most often to the extreme resource of closure and called for serious efforts at its limitation. It was useless to impose the duty of notification on the medical attendant in a disease for which he was rarely called in until alarming complications arose, and parents might plead ignorance; but schoolteachers and visitors should notify to the sanitary authority and prompt notification might be made one of the conditions affecting the grant (Section 85), the teacher inquiring into or reporting to the visitor the unexplained absence of any child. He recommended inter-notification between adjacent districts, disinfection of rooms, &c., that exposure of persons suffering from measles should be penal, and that to ensure uniformity the Local Government Board or Education Department should publish a schedule of quarantine periods. Absences under Section 101* might be specially marked in the attendance book. He read letters from Dr. Herbert Peck, medical officer of health of Ormskirk, who found a system of notification imposed on the School Board visitors and requested of the teachers to work admirably, the latter having brought to his knowledge during the past year 247 cases, including several of scarlet fever, of which he had no other intimation. For such notification forms with counterfoils had been drawn up, copies of which were shown.

Dr. PARKES doubted the need for disinfection in measles and thought that infant schools might be closed on the approach of major epidemics.

Dr. NEWSHOLME feared that these could not be foreseen with such certainty as to justify anticipatory closure. But since 75 per cent. of the deaths were of children under six years of age the closure of infant schools would effect a great saving of child-life. He would not, however, have infants under five years of age admitted, though their exclusion would lead to the detention of the older girls at home unless day nurseries were provided everywhere. In Brighton full advantage was taken of Section 101* and the Education Department allowed for the absence of all children in infected houses.

Dr. WILLOUGHBY was inclined to agree with Dr. Parkes as to the impracticability of official disinfection after every case of measles and would rather inculcate thorough house-cleaning and a general wash. He looked on Section 101* as the fruit of his own efforts in this direction, having long urged it in the columns of the *Schoolmaster*, &c. As to the cubic space they might be interested to know that in Ontario the Board of Education, after a scientific study of the whole question, fixed on 250 cubic feet per head and insisted on the adoption of jacketed ventilating stoves on the principle of the Calorigen. He wondered that the London School Board had not introduced the electric light in place of gas which added to the deterioration of the air. In Holy Trinity Schools, Eastbourne, the head-master testified to the great improvement in the air and in the work done in winter afternoons since the change.

Dr. TEW, Dr. CARR and Mr. STOTT spoke of the difficulties encountered in rural districts through the extent of their area and the paucity of sanitary inspectors and School Board visitors. Dr. Tew said that a request for closure, the attendance having fallen off to half, was frequently the first intimation he had of an epidemic of measles, while the others, though they found notification by the teachers to work very well, felt the signing of certificates on the evidence of the teachers or correspondents was not altogether satisfactory.

Dr. JOSEPH GROVES (Isle of Wight) referred to a further difficulty incident to the closure of schools in rural districts bordering on urban which resulted in the permanent loss of the children, who migrated to schools in the towns which remained open.

Dr. S. DAVIES of Plumstead and others having continued the discussion,

Dr. R. DUDFIELD replied and the resolutions he had submitted to the meeting were referred to the consideration of the Council.

LIVERPOOL MEDICAL INSTITUTION.

The Structure and Functions of Nerve Cells.—Pulmonary Tuberculosis.—Exhibition of Specimens.

A MEETING of the Pathological and Microscopical Section of this society was held on April 21st, Dr. ROBERT S. ARCHER being in the chair.

Dr. GRÜNBAUM gave a demonstration of the Spectra of

Hæmoglobin and its chief derivatives, with special reference to the properties of Carbon-monoxide Hæmoglobin.

Dr. WARRINGTON read a communication on the relation existing between the Structure and Functions of Nerve Cells. He showed that certain cells of the anterior cornua undergo a distinct structural change after the withdrawal of the afferent impulses which normally impinge upon them through the posterior roots. He also illustrated the changes which occur in nerve cells after division of their axis cylinders. He discussed the possibility of a *restitutio ad integrum* in certain cases, pointing out that whereas, if examined soon after a lesion, most of the corresponding cells show distinct changes, if a long interval is allowed to elapse the group of cells is found normal or, at any rate, only a few cells are atrophied. The communication was well illustrated by numerous specimens and by excellent drawings and micro-photographic lantern transparencies. — Dr. A. W. CAMPBELL congratulated Dr. Warrington on the capital piece of work he had concluded and said that notwithstanding all the work which had been done on the subject by the very best workers, never, in his opinion, had the connexion between the posterior root fibres and the anterior cornual cells been so beautifully demonstrated as in the specimens exhibited that evening. He thought the method employed should be extended to tracing out other connexions between spinal tracts.—The paper was also discussed by Dr. ARCHER, Mr. DAMER HARRISSON, and Dr. IMLACH.

The SECRETARY (Mr. Larkin) presented, on behalf of Dr. BUCHANAN, who was absent on account of illness, a paper entitled "Observations on Pure and Mixed Infections in Pulmonary Tuberculosis in Relation to Prognosis." The paper was accompanied by a careful analysis of 21 cases and was profusely illustrated by microscopic specimens. The paper was accepted and ordered to be published in the Transactions and a vote of sympathy with Dr. Buchanan was unanimously passed.

In addition to the numerous specimens illustrating the above communications the following were shown:—

Dr. BARENDT (for Dr. PERMEWAN): (1) A Pedunculated Fibro-myxoma removed by Subhyoid Pharyngotomy from the upper end of the Œsophagus of a woman, aged forty-six years; and (2) Large Portions of Greatly Enlarged Inferior Turbinate Bones, which had produced complete nasal obstruction, for the relief of which they had been removed.

Dr. BRADSHAW and Mr. THELWALL THOMAS showed a piece of Small Intestine which two days before death had been the seat of suture for a perforation. The patient was suffering from typhoid fever which had run a severe course of from seven to eight weeks, but the temperature had become almost normal. The operation was performed thirty-six hours after the symptoms of perforation appeared. Death took place apparently from exhaustion; no leakage had occurred.—Dr. ARCHER remarked that he had seen several cases of perforation in enteric fever and that four days seemed to be the limit of time that patients lived after its occurrence. As this patient died on the fourth day the operation did not seem to have either shortened or prolonged life. He understood that some 19 cases of this operation had been placed on record. Of these 4 had recovered, but 3 of these were probably not enteric at all.

Mr. C. THURSTAN HOLLAND showed Radiographs of, and Bones from, a Foot amputated by Mr. Robert Jones for an ulcer occupying the whole sole in a man, aged twenty-four years. There were no signs of nervous disease. The ulcer had existed five years and no dead bone had ever come away, but whilst the tarsus was complete the metatarsals and phalanges were only represented by small misshapen fragments of bone.

Mr. R. W. MURRAY showed (1) a Hydrocephalic Brain in which he had attempted to establish a communication between the ventricles and the subdural space; and (2) a case of Imperforate Anus and Congenital Stricture of the Left Ureter. The ureter above the stricture was so much dilated that it was mistaken for the bowel and opened.

Mr. LARKIN showed: 1. An Intra-articular Tumour of the Left Knee which he had recently removed from a man, aged thirty-five years. It commenced after an injury to the knee and gave rise to symptoms resembling those of a loose body. It was attached in front to the internal alar ligament and projected thence backwards between the bones. It measured 2½ in. long, 1½ in. broad, and ¾ in. thick. 2. A water-colour sketch of a peculiar variety of Imperforate Anus, in which a canal passed forward from the anal dimple along the perineum and scrotum to the penis, where it opened by a pinhole aperture discharging meconium. The urethra was normal. 3. A Persistent Vitello-intestinal Duct opening at the umbilicus and through which an intussusception had occurred.

Mr. NEWBOLT showed (1) an Adeno-sarcoma of the Breast; (2) Carcinoma of the Penis; (3) Cystic Tumour of the Jaw; and (4) a Varicose Vein 24 in. long.

Dr. IMLACH exhibited some models which he had constructed of the Spinal Cord showing the various ascending and descending tracts and their relation to the cerebral centres. He saw, he thought, that the use of such models instead of diagrams would materially simplify the study of nervous cases and enable the practitioner to compare the facts of degeneration which had been ascertained by Waller and his school with the tracts of sclerosis due to disease.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Pathological Changes in Nerve Cells.—Diagnosis of Pathological Conditions of the Endometrium.—Pathology of Fissure and Ulcer of the Anus.—Exhibition of Specimens.

A MEETING of this society was held on April 13th, Dr. BROOKE, Vice-President, being in the chair.

Dr. WARRINGTON (Liverpool) read a paper on the Pathological Changes in Nerve Cells and gave an account of some investigations which he had been conducting. He showed that marked changes occurred in the anterior cornual cells of the spinal cord after cutting off the afferent impulses which impinge upon them. The affected cells were chiefly found in the postero-external group and in that segment of the cord the afferent and efferent roots of which are specially concerned with innervation of the foot. He also mentioned and illustrated the recent changes which occur in a nerve cell after division of the axon belonging to it and showed in the case of the spinal cord that after section of an anterior root almost every cell on the side of the lesion of the affected segment gave evidence of distinct change in its structure. The paper was illustrated by a large number of drawings, microscopic sections, and lantern slides.

Dr. ARNOLD LEA read a paper on the Diagnosis of Pathological Conditions of the Endometrium, illustrated by microscopic sections and lantern slides, with special reference to the value of the microscope in the diagnosis and treatment of these affections, and pointed out the limits of its usefulness. The diagnosis of previously existing intra-uterine pregnancy can generally be made with certainty from the examination of curetted fragments. Chorionic villi may be recognised many months after the death of the ovum; decidual cells are not absolutely diagnostic, as similar cells are found in some forms of chronic endometritis, membranous dysmenorrhœa, and in the cast of extra-uterine gestation. The large glandular spaces, remains of the decidua vera, are of great value if present. In chronic glandular endometritis the mucous membrane is swollen, smooth, and softened; the glands are multiplied, enlarged, and very tortuous, the proliferated epithelium may fill the lumen and in the deeper parts solid epithelial buds may be recognised, an important fact, as this is held by some as evidence of malignancy. The stroma shows round-celled infiltration. In old cases atrophy of all the constituents of the endometrium occurs. The so-called "villous polypoid or hæmorrhagic endometritis" is rather a diffuse benign adenoma, inflammatory changes being often absent; the growths are simply glandular, very vascular and occasionally single and pedunculated. Sections of fibro-adenoma were also shown. The use of the microscope in differentiating simple inflammatory, benign, and malignant, growths is of great value; carcinoma is easily recognised, but malignant adenoma may closely simulate benign growths, the chief points of distinction being that (1) many alveoli may be completely filled with epithelial cells; (2) the glandular spaces are very numerous, much branched, and are often arranged in parallel columns; (3) the amount removed by the curette is more abundant; and (4) the growth infiltrates the muscular coat, so that in examining curetted fragments unstriped muscular fibre may often be recognised. In some few doubtful cases microscopic evidence may need to be supplemented by clinical signs before a diagnosis can be made.

Mr. J. E. PLATT made a communication on the Pathology of Fissure and Ulcer of the Anus. After referring to a few

points in the anatomy of the lower end of the rectum, more particularly the form of the anal valves and the free distribution of branches of the inferior hæmorrhoidal nerves to the muco-cutaneous junction, he stated that two distinct affections having a different pathology are described together in text-books as fissure and ulcer of the anus. He gave the following account of these conditions: 1. In a large proportion of the cases the lesion is situated at the junction of skin and mucous membrane and generally takes the form of a vertical fissure, most frequently situated at the dorsal part of the anus. It is produced by undue stretching or excoriation of the part and amongst its causes are the passage of hard fæces, severe diarrhœa, want of cleanliness, eczema, syphilis, laceration during child-birth, and congenital stenosis of the anal outlet. The affection is extremely painful owing to the very free nerve-supply of the muco-cutaneous junction. Not infrequently one or more nerve-filaments are exposed in the base of the fissure. The pathology of the affection is that which is usually described as applicable to all cases of fissure and ulcer of the anus. From constant irritation reflex spasm of the sphincter muscles is set up and thus healing is prevented. 2. The second affection is situated, or at all events begins, at the upper part of the anal canal and is due to a tearing down of one of the anal valves. As a result of this a raw surface is produced, healing is prevented by the frequent opening of the wound during the passage of fæces and an ulcer, round, triangular or V-shaped, results. The torn-down valve becomes œdematous and indurated, thus giving rise to the "sentinel pile" so often met with in these cases. This view of the pathology of fissure was first advanced by Mr. Ball of Dublin. It undoubtedly holds good for one class of cases, but it is by no means applicable to all. Reference was also made to certain differences in the symptoms and the treatment of the two conditions.

The following card specimens were exhibited:—

Dr. HARRIS: (1) Aortic Aneurysm; and (2) Thyroid, &c., from Exophthalmic Goitre.

Mr. HIGGINSON: Two cases of Extra-capsular Fracture of the Femur.

Dr. LEA: (1) Uteri removed for Multiple Fibroids; and (2) Uterus and Appendages removed for Gonorrhœal Inflammation.

Dr. LEECH: Ulcerative Entero-colitis.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Peritonsillitis.—Cephalic Tetanus.

THE ordinary monthly meeting of this society was held on March 30th, the President, Dr. ARNOLD EVANS, being in the chair.

Dr. EURICH gave a Microscopical Demonstration.

Dr. GLADSTONE showed: (1) A case of Myxœdema treated with thyroid gland; and (2) a Specimen of Meckel's Diverticulum.

Dr. CAMPBELL exhibited the Kidneys from a case of Cerebral Hæmorrhage in a boy aged fourteen years. The illness commenced suddenly with an attack of nausea followed by vomiting. The patient then had a fit and three hours from the commencement was comatose with Cheyne-Stokes respiration. The reflexes were brisk and the optic discs were blurred. There was no paralysis. The patient died from respiratory failure after six hours' illness. On post-mortem examination there was extensive hæmorrhage into the brain cavities, but not into the cerebral substance. The pericardium was adherent and the heart was hypertrophied. The kidneys were much enlarged and showed the changes of congenital cystic disease, together with those of chronic parenchymatous nephritis.—Professor TREVELYAN and Dr. WOOD discussed the case and Dr. CAMPBELL replied.

Dr. BRONNER read notes on Peritonsillitis. He pointed out that the tonsil may or may not be enlarged and that there is often present disease of the surrounding cavities, e.g., carious teeth. Œdema of the tissues about the tonsil indicates the presence of pus which usually points above. The pus should be evacuated by puncture about the middle of a line drawn from the base of the uvula to the upper wisdom tooth. Pain in the ear is often a prominent symptom and there is often tenderness over the tip of the mastoid process. In the after-treatment enlarged tonsils should be removed or the diseased lacuna slit up. Any disease of the accessory cavities should be treated.—Dr. HALL drew attention to hæmorrhage and to septicæmia as complications of tonsillitis. The hæmorrhage might occur independently of any incision.—Dr. MAJOR, Dr. WOOD, and Mr. BERESFORD offered further remarks and Dr. BRONNER replied.

Dr. BASIL HALL read notes on a case of Cephalic Tetanus. The symptoms appeared on the fifth day, after a wound in the malar region. The patient was treated from the beginning with chloral hydrate and on the fourteenth and subsequent days injections of antitoxic serum were given. He was discharged cured on the thirty-fourth day.—Professor TREVELYAN drew attention to the presence of paralytic symptoms as the distinction between cephalic and ordinary tetanus. He thought that if the antitoxin treatment were to be successful the serum used must be of high potency.—Dr. WOOD offered further remarks and Dr. HALL, in replying, doubted if the antitoxin had much to do with the patient's recovery.

Diagnosis.

A special meeting of this society was held on April 1st, the President, Dr. ARNOLD EVANS, being in the chair.

Dr. PYE-SMITH gave an address on Diagnosis. Alluding to the extreme importance of diagnosis in the practice of medicine Dr. Pye-Smith pointed out that this importance has only been recognised comparatively recently and that the older physicians were content to regard symptoms such as dropsy and apoplexy as diseases. The introduction of physical examination, combined with the study of morbid anatomy, at the beginning of the present century led to the comparison of the physical conditions as determined at the bedside with those found in the body after death, and thus a firm basis was established on which the relations between physical signs and diseased conditions could be determined. Dr. Pye-Smith insisted that the physicians should not be satisfied till a diagnosis in any case had been made and written down, the diagnosis to be made deliberately after due examination and not on mere superficial considerations. In complicated cases it is sometimes necessary to neglect some details while grasping the salient points and this could only be done by practice and insight. It is often necessary to fix on some important objective symptom and not to be too much influenced by history and subjective symptoms, which are often very misleading. It may be necessary to make a diagnosis gradually, the different steps being only attained after the lapse of time. Assuming a diagnosis to have been made, it may be that the treatment proves ineffective or the prognosis is shown to be inaccurate. It is then best to go over the whole case afresh, when some symptom or sign not existing or not detected at the previous examination may become evident, thus throwing a new light on the whole case. A diagnosis, especially in writing death certificates, must not be pushed beyond what the facts warrant in the absence of a post-mortem examination. Dr. Pye-Smith alluded to the consideration of diagnosis in insurance reports and pointed out that death from "childbirth" often might mean phthisis; or from "jaundice" or "dropsy" intemperance. Judgment in coming to a diagnosis depends largely on a knowledge of pathology and it must be assumed broadly that the common things commonly occur. The use of surgical interference to make a diagnosis was deprecated until the other methods at the command of the physician have been exhausted.

A vote of thanks, moved by Dr. EVANS, seconded by Mr. MAYO ROBSON, and supported by Dr. ALEXANDER, was carried.—After the address a dinner was held, at which Dr. PYE-SMITH and about fifty members of the society were present.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Intestinal Resection.

A MEETING of this section was held on April 1st, Mr HENRY GRAY CROLY being in the chair.

Mr. JOHN LENTAIGNE detailed three cases of Acute Intestinal Obstruction from Malignant Disease which he had

treated by the formation of an intestinal fistula, at a point above the obstruction, so placed as to be least likely to interfere with a subsequent operation for radical cure of the disease. As the seat of disease in each of the three cases was the sigmoid flexure the fistula was made in the cæcum. In the first case the bowels resumed their normal function eleven days after the completion of the intestinal fistula; the latter then gradually closed of itself. Nine months later the patient came back to the hospital. The fistula had then reopened and the bowels were acting freely through it. Large masses of cancer could be felt through the abdominal wall. This patient died thirteen months after the operation. In the second case an operation for radical cure by resection of the cancerous mass, with end-to-end anastomosis after the method recommended by Professor Kocher, was performed three months after the fistula had been completed. The patient had enjoyed excellent health ever since and as two years had elapsed since the resection it was not unlikely that a complete cure had been effected. In the third case the patient had delayed very much longer, not returning until eight months later. She was anxious to have something done and an exploratory laparotomy was performed. It was found that the disease had spread far and wide and was absolutely inoperable; the abdomen was closed and the patient left the hospital shortly after, the bowels acting freely through the fistula. She was no better for the last operation, but neither was she any the worse. Celloidin was of great use as a dressing in effectually preventing contamination by discharges from the fistula. The cæcal fistula was quite as efficient as an artificial anus and much more satisfactory inasmuch as it closed of itself when the obstruction below it was removed.

Mr. GORDON read a paper on a case of Hæmorrhagic Infarction of the Small Intestine which he had treated by resection. The leading symptoms were: (1) sudden onset, marked by severe abdominal pain; (2) vomiting; (3) prostration bordering on collapse; and (4) a tumour formed by a distended coil of gut, easily palpated in the right iliac region. There was no general abdominal distension. Operation was performed twenty-four hours after the onset of pain. Much bloody fluid was found in the abdomen and the coil of distended bowel was black. Two feet of small intestine were resected, together with an area of mesentery. The ends of the gut were united over a bone bobbin. An intestinal fistula formed ten days later, but had completely closed at the end of three weeks from the date of operation. This was in August, 1897, and up to the present there had been no evidence of abdominal trouble.—Mr. WHEELER said it was fortunate that bobbins would probably be required no longer since the discovery of Maunsell's method. He had lost two cases in which he had used Murphy's button, to which he thought the result was due. The best result of excision of the large intestine he had ever seen was obtained by the late Dr. Kidd, and he, having excised about six inches of bowel, sutured the bowel over a scoop cut out of a piece of carrot.—Mr. HARRISON SCOTT, Mr. R. GLASGOW PATTESON, and Mr. HENRY GRAY CROLY also discussed the cases.

SECTION OF MEDICINE.

Cerebral Abscess.—Typhoid Fever.

A MEETING of this section was held on April 15th, Sir GEORGE DUFFEY, the President, being in the chair.

Mr. J. J. BURGESS read a paper on a case of Cerebral Abscess.—Dr. E. H. BENNETT thought the specimen a rare one of chronic abscess of the brain, existing and giving sufficient characteristic symptoms for over two years. Probably a blood-clot in the arachnoid was the primary lesion and suppuration took place in it. He thought that operative interference would have had a bad result in the case.—Dr. FALKINER asked Dr. Bennett why he thought that operative interference would have produced a more rapidly fatal result. He himself would have been in favour of surgical interference.

Dr. FINNY read notes on a case of Laryngeal Ulceration in the Advanced Stage of Typhoid Fever.

Dr. H. C. DRURY read a paper entitled "Some Remarks on Typhoid Fever." He expressed the opinion that the occasional use of mild purgatives at any stage of the disease, where indicated, was not only harmless but beneficial. He also discussed the question of the time to give solid food and said that in average cases a small quantity of fine farinaceous food might be given on the fourth day. He thought, also, that too much routine was followed by insisting on the use of the bed-pan in all cases. So many patients found its use difficult or intolerable that it was more likely to do harm than a night-chair, the use of which was always easier, and he had never seen it followed by any bad result. He quoted statistics from Cork-street Fever Hospital, where all these practices were followed, to show that he was justified in stating that they were in no wise harmful but rather beneficial.—Dr. LITTLEDALE said that with the Widal reaction there were two kinds of motion—molecular motion, which occurs in most typhoid fever cases for half an hour, and true motion, which, as a rule, is not seen in typhoid fever cases. As regards clumping, in cases of typhoid fever after a clump is formed a bacillus will never leave a clump, whereas in other non-typhoid fever cases two or three bacilli will leave the clump and go across the field. He thought that the Widal reaction sometimes left one in doubt. In ordinary cases he was disposed to think that they diluted too much.—Mr. BURGESS agreed with Dr. Drury regarding the treatment of typhoid fever with purgatives. He had tried purgatives for many years and never found any bad results.—Dr. J. W. MOORE agreed entirely with the treatment by purgatives. Calomel was the best aperient in the earlier stages, from two to five grains in the first week of the fever.—Dr. W. G. SMITH said that he was in favour of aperients in constipation, as the latter tended to precipitate perforation. He gave castor oil and calomel by the mouth and enemata when necessary.

Reviews and Notices of Books.

Ambroise Paré and his Times. By STEPHEN PAGET. Illustrated. New York and London: G. P. Putnam's Sons and the Knickerbocker Press. 1898. Pp. 304. Price 10*s.* 6*d.*

IT is easy to understand Mr. Stephen Paget's enthusiasm for the great French surgeon of whose picturesque life and times he has given an excellent account in these pages There are few more attractive personalities than that of Ambrose Paré; his life was full of adventure and romance and he reveals in his own story of his life a character delightfully compounded of simplicity, shrewdness, and humour. As a surgeon he was the type of the practical man, not caring greatly about theory in which he was little, if at all, ahead of his time although far above all his contemporaries in practice. His extreme attention to details and his remarkable fertility of resource in devising methods of treatment were probably the great secrets of his success. They are illustrated at every turn in his own writings from which his present biographer has wisely drawn largely, thus allowing him in great part to be his own biographer. Paré's life (1510–90) almost covers the sixteenth century. The history of France during that century is one of the most picturesque and romantic periods of all history. Paré during his life of eighty years saw seven successive occupants of the French throne, from Louis XII. to Henri IV., and was surgeon-in-ordinary to four of them. The history of their reigns is one of almost incessant warfare, at first against an alien enemy and later nearer home in the long internecine struggle between Catholics and Huguenots. There was no lack of work for the army surgeon in those days and rather more than his share of it fell on Ambroise Paré's capable shoulders. His earliest experience of war was at the attack of Turin in 1537, an account of which forms the first chapter of his famous "Journeys in Diverse Places." It was in this expedition that he was horrified by the barbarous practice then in vogue of treating gunshot-wounds by pouring in boiling oil, and he substituted for this the more humane method of applying "a digestive made of the yelks of eggs, oil of roses and turpentine." This and all his succeeding "Journeys"

are excellent reading—full of good stories, but more especially attractive from the naïve manner in which they are told and still more naïve marginal notes of the author. In those notes he stops every now and then to encourage himself with such remarks as "Témoignage de la dexterité de l'autheur," "Addresse de l'autheur," or "Charité de l'autheur." His quite delightful vanity may be readily forgiven him; without it we might never have had these entertaining stories. He wrote the book in answer to one Etienne Gourmelen, who had asserted that "Paré's revived use of the ligature was inferior to the old-established use of the cautery in amputation wounds." He tells the story of all his campaigns to prove that his knowledge was gained in hard practical experience and that compared to it the book knowledge and theory of his adversary was mere prating pedantry. He never tires of reminding poor Gourmelen of this at every opportunity, always in good temper, however, and often with no little humour.

Paré published several other books—works on Surgery, Anatomy, Gunshot Wounds, the Plague, and Obstetrics. Mr. Paget urges his readers to study Paré at first hand in his own writings. We can warmly recommend this volume as an introduction and guide to anyone following the advice. The author has gathered together a large number of detailed facts concerning his hero's life and illustrating his character, and these should whet the reader's appetite for a closer acquaintance with his works. The interest of the volume is enhanced by the large number of illustrations which it contains; these include portraits of Paré himself, of several French sovereigns and other contemporary celebrities, views of old Paris, blocks of surgical instruments taken from Paré's works, and a remarkable block showing a method of reducing dislocation of the humerus.

Practical Toxicology for Physicians and Students. By Professor Dr. RUDOLF KOBERT. Translated and edited by L. H. FRIEDBURG, Ph.D. New York: William R. Jenkins. 1897.

KOBERT'S "Compendium of Practical Toxicology" is properly recognised as a standard work, and an English translation which appears as a first American edition will be welcomed. Among the chief features in Dr. Kobert's work are the excellent tables, which in themselves give at a glance the characteristics of poisons, chemical and clinical, and the course to adopt when there is a possibility after the poison has been recognised of the saving of the life of the individual. The book, though not a large one, is very comprehensive. The translator, in his lectures and demonstrations at the American Veterinary College, New York, as well as at the Flower Hospital Medical College, has adopted Kobert's Compendium as a standard work of reference. The tables in particular prove valuable and from a student's point of view convey "all they cared to know." We are glad that Dr. Friedburg was not tempted by this pronouncement to give a translation simply of these tables or of abstracts of them. This course would have been manifestly unfair to the author. As it is, the work, translated in its entirety, is one that will prove valuable to toxicologists for reference, whether they be students or men engaged in everyday practice. The book is an excellent example of the power of concentrating facts within easy compass without sacrificing their importance. The work is divided into three sections: (1) general toxicology, (2) special toxicology, and (3) an appendix. The first section relates to the definitions of poison, to the etiology, diagnosis, and prognosis of poisoning. Antidotes are here also referred to and an interesting chapter is added on the pathological demonstration of poisoning. This is followed by an admirable *résumé* of the methods employed for the chemical and physiological detection of poisons. The section on special toxicology relates to substances which cause "grave anatomical changes" of the organs such as corrosives, to blood poisons such as phallin and substances like the poisons of the cerebro-spinal system which may prove fatal without causing any specific anatomical indications. The appendix is a very valuable contribution, consisting of a review of the toxicologically interesting products of metabolism. This of course includes animal and vegetable esculents and the poisons occurring occasionally in sausages, meat, and cheese. The book is full of "Americanisms," of which the heading in one instance—namely, Table of Intoxications by the Most Important Tetanics—is a fair sample. The nomenclature adopted is again that of the American Association for the Advancement of Science, 1891. Although these may be a source of irritation to the English reader in England it does not detract from the merits of the book, which are considerable. The book is indeed a valuable addition to the literature of toxicology.

A Text-book of Practical Therapeutics. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital, &c. Sixth edition. London: Henry Kimpton. 1897. Pp. 758. Price 21*s.*

THE fact that this work has passed through five editions in seven years, and that a sixth is now called for, is sufficient evidence that not only has a want been supplied but that the author has been successful in his endeavours to carry out his intention of producing a work on therapeutics which should teach a distinct practical application of remedial agents in the treatment of disease and their employment upon a rational basis.

The book is divided into four parts. Part I. is concerned with general therapeutical considerations, modes of administering drugs, dosage, strength and reliability of drugs, classification of drugs, &c.

Part II., which occupies the main part of the work, is simply headed "Drugs," and contains a full description of the various mechanical agents included under that term, together with their therapeutic measures. This portion is worthy of the highest praise. After a technical description of the drug, its source and preparation, follows its physiological action on the various systems of the body; then the modes of its elimination; next any peculiar properties, such as an antiseptic action or toxic changes from prolonged use, &c. Then we find the symptoms of poisoning and the measures to be adopted should such an occurrence present itself. The therapeutics are very plainly and fully considered and conclude with "untoward effects" (if any). Then follow the methods of administration, the doses being given according to the two systems in vogue (apothecaries' and metric), and finally are the "contraindications" for the use of each drug.

In Part III. are described remedial measures other than drugs and a description of the methods employed in preparing foods for the sick.

Part IV. commences with a consideration of the various diseases purely from a therapeutic point of view. Here also will be found a large amount of useful information. In conclusion various tables are given—namely, "doses of medicines," "tables of relative weights and measures in the metric and apothecaries' systems"; index of drugs and remedial measures and index of diseases and remedies.

We can thoroughly recommend this book to practitioners and students.

Surgical Pathology and Principles. By J. JACKSON CLARKE, M.B. Lond., F.R.C.S. Eng. London: Longmans, Green, and Co. 1897. Price 10*s.* 6*d.*

THOSE students who have had the benefit of Mr. Jackson Clarke's oral instruction will be glad of this embodiment of

it in permanent form. He has condensed into a comparatively small compass a large amount of fact in connexion with surgical pathology, surgery, and allied subjects. It is presented plainly, if summarily, and, as might be expected from the author's knowledge and experience in teaching, prominence is chiefly given to those matters which are of the greatest importance. It is, moreover, sufficiently accurate and up to date. Such a book will doubtless be useful to the student who is preparing for examinations and has therefore its justification. The writer has, however, in our opinion attempted too much; his professed aim has been to present not only the facts of surgical pathology but the principles of their application to surgery, and he has gone beyond this and introduced no small amount of symptomatology and even details of treatment. Thus in the short section on diseases of the eye little room has been left for their pathology in the true sense of that term. Under the heading of tumours of the brain a short indication of the nature of the commoner tumours is given, followed by a here unnecessary epitome of their symptoms which includes an incomplete definition of Jacksonian epilepsy but no account either of its pathology or of the pathology of any other symptom. Under the heading of leukæmia, which has, by the way, very doubtful affinities with Hodgkin's disease, the description of the blood changes is entirely inadequate. In a work of this kind bacteriology should either be omitted or more fully dealt with. Koch's postulates require to be explained to a student, not merely baldly stated, and such difficult problems as immunity are not to be passed over with so little ceremony as is here the case. The book, in fact, good as it is in many respects, would have been vastly better if the author had limited himself more strictly to true pathology; if he had explained more even at the cost of stating less. The numerous illustrations, though not wanting in clearness, are sometimes crude and occasionally inartistic. The etymology of many words derived from the dead languages is well explained, but we must point out that empyema is incorrectly spelt "empyæma." The defects which we have felt it our duty to mention are nevertheless outweighed by the large amount of useful and well-presented surgical fact which Mr. Jackson Clarke has succeeded in condensing into small compass for the use of the student.

Vade Mecum of Ophthalmological Therapeutics. By Dr. E. LANDOLT and Dr. P. GYGAX, translated by Dr. E. NEYMAN. London and Philadelphia: J. B. Lippincott Company. 1898. Pp. 138. Price 3*s.* 6*d.*

THIS handy little volume will be found very serviceable by practitioners who may require, without having the opportunity of referring to the larger ophthalmic works, to improvise the means of treatment of any of the ordinary diseases of the eye. It is entirely devoted to therapeutics; there is no hint of diagnosis or any description of the course of the different affections to which the eye is liable. It is presumed throughout that the surgeon recognises the disorder and only wishes to be reminded of the means at his disposal for its relief or cure. The subjects are treated of in alphabetical order, and whilst on the one hand the several drugs and their doses and effects are given, on the other hand the various diseases are mentioned, with the drugs which have been found to be serviceable in their treatment and upon which experience has shown that reliance can be placed. The doses are given both in the French metric and in the English apothecaries' weights. An example or two will best show how the subjects are treated. Turning to cyclitis we find: "Rest, atropine (23 a), poultices (255), diaphoresis (305), purgatives, smoked glasses. For the pain: morphine (231 c), strengthening treatment, iron (164), and iodine (147) preparations. In case of synechiæ: iridectomy as soon as inflammation has subsided." The numbers refer to other articles. We find accordingly under 23 a: "Neutral sulphate of atropine 0/05 = ½ grain. Distilled water 10/00 = 2½ ʒ." Three other formulæ for atropine lotions are appended. After these have been given the following remarks are made: "To get the *greatest possible effect* introduce the pure salt into the conjunctival sac, taking care to close the lacrymal ducts by pressure. As a rule let the patient keep the eyes closed for five minutes after having instilled the mydriatic. In case of poisoning by atropine, (*a*) absorption *per os:* stomach-pump or hypodermic injections of a solution of hydrochlorate of apomorphine 2 : 1000 up to 30 centigrammes (5 grains); (*b*) absorption *through the tissues* (injections): hypodermic injections of a solution of hydrochlorate of pilocarpin 5 : 100, repeated as often as necessary up to 60 centigrammes. In *both* cases *internally:* brandy, strong coffee, carbonate of ammonia (10 b)."

The number of entries is no less than 326 and as far as we have consulted the work the remedies seem to be thoroughly reliable. Had we space we should have liked to reproduce the article on Keratitis, which is exceedingly well done.

Psilosis or "Sprue"; its Nature and Treatment, with Observations on Various Forms of Diarrhœa acquired in the Tropics. By GEORGE THIN, M.D. St. And. Second edition. London: J. & A. Churchill. 1897.

OUR knowledge of tropical diseases of the alimentary canal is still so imperfect that all students of the subject will welcome the appearance of a new and enlarged edition of Dr. Thin's well-known monograph on psilosis. The diagnosis and treatment of this malady are already placed on a fairly firm basis, but as to its etiology and true pathology we are still almost in the dark. Dr. Thin's researches in the field have been important and are well set forth in the present volume. In the earlier chapters the symptoms, geographical distribution, and diagnosis of the disease are considered. The literature of the subject and the different varieties of psilosis are next reviewed. The author gives sufficient reason for separating true psilosis from ordinary tropical diarrhœa, relying especially on the tongue symptoms in early stages of the disease. The pathological changes which have been observed are fully reported, including the two cases which were minutely investigated for the author by Dr. Wethered, particulars of which have been already published. In the chapter on etiology such bacteriological examinations as have been made are described, and we can only regret their incompleteness and inconclusiveness. In the matter of treatment Dr. Thin is in accord with other authorities on the subject, rigid diet being the essential factor. Not the least important part of the book will be found in the appendix, in which some 30 selected cases are fully described. It is from a study of these cases that the author's conclusions may best be justified. Some valuable coloured plates of the tongue in psilosis complete the book which constitutes an important contribution to the literature of the subject.

On Partial Stationary Cataracts. By HUGO WINTERSTEINER, M.D., First Assistant to the First Ophthalmic Infirmary at the University of Vienna. English edition. Edited by Professor H. MAGNUS. With 20 coloured Plates and text. London: Williams and Norgate. 1898. Price 17*s.*

ALTHOUGH in the numerous pictorial representations of lenticular opacities many forms of stationary cataract have been published, we are not aware that any drawings have been issued dealing exclusively with this form of disease. The author states that all the figures have been reproduced in quintuple linear size, and that he has used for the purpose of examination Magnus's plane mirror with a strong convex lens behind it or transmitted light and Hartman's spherical lens for lateral illumination.

The forms of cataract he has represented are anterior polar cortical cataract, anterior stellate polar cortical cataract, punctated cataract, punctate and stellate perinuclear cataract, central cataract, posterior stellate cortical cataract, cortical æquatorial cataract, traumatic cataract, anterior capsular polar cataract, pyramidal cataract, and secondary cataract after operation for extraction, of which several drawings are given. The whole series are highly finished and are on a scale which permits details to be clearly seen. They are moreover very instructive, not only showing the position and the general appearance offered by each form but also the difference in the aspect presented according to whether the defect is examined by reflected or by transmitted light. The drawings are accompanied by a booklet of explanatory letterpress giving a short account of the history of each case. The notes are perfectly intelligible, but they might have been subjected to the perusal of an Englishman to remove the very obvious indications of translation from the German which they present. The work will prove useful both to general practitioners and to ophthalmic surgeons.

Southall's Organic Materia Medica. Fifth and enlarged edition. By JOHN BARCLAY, B.Sc. Lond., sometime Lecturer on Materia Medica and Pharmacy in Mason College, Birmingham. London: J. & A. Churchill. 1898. Pp. 306. Price 6*s*.

THIS volume is simply what it professes to be, a manual of materia medica, but there is no intention to teach the student either pharmacology or therapeutics, the aim being merely to give him just such information as a person engaged in the handling of drugs might with advantage possess. By druggists and dispensers, therefore, the book will be found most useful, for the descriptions of the drugs and their modes of preparation are well given, and a full index makes it a handy volume of reference. To the medical student, however, for purposes of examination it would be of little value.

The chemical notes are well up to date, while the use of small type in the form of notes dealing with matters of minor importance, such as substitutions, adulterations, allied drugs, &c., has been adopted, it being intended that the reader may thus, to some extent, be guided as to the relative value of the different items of information supplied.

Sewer Gas and its Influence upon Health. By ALFRED H. ROECHLING, C.E. London: Biggs and Co. Price 5*s*. 1898.

MR. ROECHLING has done a good service by collecting together all the evidence in literature and practice relating to the important subject of the connexion existing between sewer air and disease. The poisonous nature of sewer air is still far from completely understood. That it has insidious properties is well known, but its subtle character is not explained by chemical analysis or even by its bacteriology, for, as has been shown by Messrs. Laws and Andrewes in a report to the London County Council, sewer air is practically sterile at least as regards the presence of specific pathogenic organisms. Mr. Roechling has presented these interesting results at some length, while proper emphasis is laid upon the classic investigation of Dr. Alessi. As will be remembered, Dr. Alessi showed that the inspiration of putrid gases predisposes animals to the pathogenic action of even attenuated typhoid bacilli and of bacteria coli. As Mr. Roechling observes these conclusions serve to confirm that which some authors had epidemiologically foreseen and which social hygiene had practically and painfully confirmed. The book contains instance upon instance of outbreaks of typhoid fever being traced to sewer air and immunity from typhoid fever being the case where plans of sewerage and drainage are as perfect as modern construction can make them. Mr. Roechling's work is undoubtedly a valuable contribution on a subject the importance of which cannot be exaggerated. The literature on the relation of sewer air to disease is scattered somewhat broadly, which makes work of reference hard and tedious and unsatisfactory. The present collection of evidence and material is a task which Mr. Roechling has accomplished well and the thanks of all those interested in sanitary advance are due to him.

LIBRARY TABLE.

Sieroterapia. (*The Serum Treatment of Disease.*) By Dr. EMILIO REBUSCHINI. Milan: Ulrico Hoepli. 1898. Pp. 421. Price 3 lire (2*s*. 6*d*.).—This little book, which is one of the extensive series known as the "Manuali Hoepli," gives a useful digest and summary of the various methods of serum treatment which have been employed, as well as of the results which have up to the present time been attained. Original memoirs relating to this subject sometimes become difficult of access for the majority of readers, and the publication of a condensation of them in the present compact and convenient form will commend itself to all who possess even a slight knowledge of Italian. Serum treatment has been applied to upwards of twenty diseases or morbid conditions, diphtheria being, of course, the most important one. Next in order come tetanus, tuberculosis, various streptococcic infections (e.g., erysipelas, puerperal septicæmia, complications of scarlet fever), snake-bite, &c. Dr. Sanarelli's discovery of the bacillus of yellow fever and his immunisation of animals with cultures of it form the subjects of an interesting chapter.

Cookery for Invalids and Others. By LIZZIE HERITAGE. London: John Hogg. 1897. Pp. 184. Price 2*s*. 6*d*.—The list of dishes is copious and well selected, so that no difficulty will be found in providing ample variety to tempt fastidious appetites. The author has not introduced any article which is either troublesome to procure or too expensive for ordinary households and she has made her directions for cooking and serving plain enough to be easily followed. Some will perhaps regret the entire exclusion of cheese, as there are many invalids who can take it in small quantities without inconvenience; either grated or softened by heating with a little milk it is a great improvement to macaroni.

Zur Austilgung der Syphilis. (*The Extinction of Syphilis.*) By Dr. ERNST KROMAYER. Berlin: Verlag von Gebrüder Borntraeger. 1898. Pp. 105. Price, bound, 3 marks 50 pfennige (3*s*. 6*d*.).—The object of this somewhat curious book is to advocate considerable changes in the methods at present adopted by continental nations for the repression of venereal diseases. Dr. Kromayer, who is a *privat-docent* at the University of Halle, argues that it is a delusion to suppose that similar preventive measures are applicable to both gonorrhœa and syphilis, for the majority of prostitutes are never without gonorrhœa, the hospital treatment to which they are subjected does not cure it, medical examination cannot guarantee that a woman does not suffer from it, and any certificate of freedom from it is "a fraud on her patrons" (*ein Betrug des Publikums*), whom she not infrequently infects immediately after having been examined. The medical examination (he says) ought entirely to disregard both gonorrhœa and soft chancre, but syphilis, on the other hand, ought to be dealt with in the most thorough fashion, and he proposes a scheme for the purpose, arranged under nine headings, the principal of which are as follows: everyone who contracts a venereal complaint shall immediately have it diagnosed by a medical man; everyone who is cognisant of another person having a venereal complaint shall advise that person to apply to a medical man and failing compliance shall himself (or herself)

report the case; anyone may claim to be examined without fee by specially appointed medical men, and in the event of syphilis being found shall be entitled to gratuitous treatment. Compulsory examination and treatment are also provided for.

Plays, Pleasant and Unpleasant. By BERNARD SHAW. London: Grant Richards. In two vols. Price 5*s.* each. 1898.—If any of our readers should wonder why we have taken to reviewing plays he should remember that the drama and the priesthood—or rather we should say the Church, using the term in its widest sense—were formerly very intimately connected; a play in ancient Greece, for instance, was a really religious function. Everyone knows, too, that the callings of medicine and the priesthood were frequently discharged by the same persons. Obviously, then, the connexion between the drama and medicine is clear. The play with which we are more concerned in the present collection is one placed by Mr. Shaw in the "unpleasant" section, and rightly, too, we think—not because it scoffs at sundry medical theories or because Mr. Shaw's presentment of a medical man is a caricature, but on account of its subject, namely, ill-assorted marriages. However, they are matters only too common and their examination is, like a post-mortem examination, unpleasant in some ways but interesting, and if properly undertaken of value in pointing the way to avoid them, or lessen the pathological conditions found, for the future. Dr. P—— has discovered a disease, and this is how he and it are introduced:—

Sylvia. We found that out at home when our great sorrow came.

Charteris. What was that?

Sylvia. I mean when we learned that poor papa had P——'s disease.

Charteris. P——'s disease! Why, what's the matter with P——?

Sylvia. Oh, not a disease that he suffers from, but one that he discovered.

Charteris. The liver business?

Sylvia. Yes; that's what made P——'s reputation, you know. Papa used to get bad occasionally. ..... The doctor never knew what was wrong with him until Dr. P—— discovered a dreadful little microbe in his liver. ..... P—— discovered them first and now he declares that everybody should be inoculated against them as well as vaccinated. But it was too late to inoculate poor papa. ..... Poor old boy! they cut off his liquor, and he's not allowed to eat meat.

In Act 3 P—— is observed while reading a newspaper suddenly to turn pale and stagger. On being questioned he says he has fatal news. "'My disease ..... the work of my life. Look here ..... if this is true it was all a mistake; there is no such disease.'" P—— is naturally much hurt. "'It's all the fault of the wickedly sentimental laws of this country. I was not able to make experiments enough—only three dogs and a monkey. Think of that, with all Europe full of my professional rivals. ..... And now comes this cursed Italian who has ruined me. He has a Government grant to buy animals with, besides having the run of the largest hospital in Italy.'" P—— and Craven have an argument a little further on about the relative cruelty of the war in the Soudan and vivisection. Craven, the man whom P—— had doomed, argues that that was fair fighting and that he risked his own life. P—— retorts that machine-guns were used against naked spearmen, and he adds, with regard to the question of life, "and I have risked mine, as all doctors do oftener than any soldier." To which Craven replied: "That's true; I didn't think of that. I beg your pardon, P——; I'll never say another word against your profession." It is sometimes a little difficult to know when Mr. Shaw is serious, but there can be no doubt about the righteousness of his indignation with slum-owners and sundry other classes in our modern civilisation. All the "Unpleasant" plays are worth reading and so are the first three of the "Pleasant." As Mr. Bernard Shaw has unfortunately selected a name which is similar to the name of a medical man practising in London we have thought it better to use only the initial.

Analytical Records
FROM
THE LANCET LABORATORY.

(1) LIQUID CONFECTION OF SENNA; (2) CREAM DENTIFRICE.

(W. H. LOWE AND CO., 8, STAFFORD-STREET, OLD BOND-STREET, W.)

THE advantages of a liquid confection of senna are obvious. In the preparation of the confection submitted to us the liquid extract is employed instead of the powdered senna leaves, as by this recourse the griping principle of the leaves is eliminated. The preparation, though viscous, is not inconveniently sticky and solid. It is highly aromatic and pleasant to the taste. The cream dentifrice is enclosed in a collapsable tube, and in addition to the presence of approved antacids contains also the extract of quillaia, which has a very pleasant detergent effect upon the teeth and gums. The dentifrice further contains an agreeable antiseptic and essential oils.

SPANISH WINES AND BRANDY.

P. DE OTADUY AND CO., 20, HIGH HOLBORN, W.C.)

We have examined the various specimens of wine sent to us by the above wine-growers with satisfactory results. The character of each specimen may be judged from the following analytical results:—Tudela claret (vintage 1893): alcohol, by weight 8·64 per cent., by volume 10·73 per cent., equal to proof spirit 18·81 per cent.; extractives, 2·08 per cent.; mineral matter, 0·23 per cent.; sugar, 1·04 per cent.; tartaric acid, 0·39 per cent.; and acetic acid, 0·17 per cent. This is a wine of light character and is in sound condition. There is no doubt of its purity. Superior Rioja claret: alcohol, by weight 9·36 per cent., by volume 11·61 per cent., equal to proof spirit 20·35 per cent.; extractives, 2·16 per cent.; mineral matter, 0·26 per cent.; sugar, 1·26 per cent.; tartaric acid, 0·49 per cent.; and acetic acid, 0·16 per cent. This wine is from the vintage of 1892. It possesses slightly more body than the previous wine and its alcoholic strength is slightly higher. It is a sound wine and evidences good bouquet and taste. Royal claret (vintage 1893): alcohol, by weight 10·08 per cent., by volume 12·49 per cent., equal to proof spirit 21·89 per cent.; extractives, 2·23 per cent.; mineral matter, 0·20 per cent.; sugar, 1·70 per cent.; tartaric acid, 0·57 per cent.; and acetic acid, 0·16 per cent. This wine possesses good flavour, but is not so delicate as the previous one. The alcohol is in slightly increased proportion, as are also the sugar and extractives. Sauterne Espagnol (vintage 1891): alcohol, by weight 10·08 per cent., by volume 12·49 per cent, equal to proof spirit 21·89 per cent.; extractives, 1·52 per cent.; mineral matter, 0·18 per cent.; sugar, 0·34 per cent.; tartaric acid, 0·60 per cent.; and acetic acid, 0·24 per cent. This is a white wine of pleasant "dry" character. Its alcoholic strength is precisely the same as that of the previous specimen, but the amount of sugar is quite small. It possesses a peculiar but pleasant flavour and the bouquet is that of a sound wine. Lastly, we have examined the brandy (Toison de Oro), which gives evidence both on taste and analysis of a genuine grape spirit. The results of analysis were as follows: alcohol, by weight 36·28 per cent., by volume 43·26 per cent., equal to proof spirit 75·80 per cent.; extractives, 1·30 per cent.; mineral matter, 0·03 per cent.; acidity equal to acetic acid, 0·054 per cent.; and alcohol derived from volatile ethers, 0·7

per litre. Such a spirit is much to be preferred for medicinal purposes to spirit obtained in a large measure from cereals, since the former contains the ethers of pure wine whence it is distilled. Our examination of these wines afforded no evidence of any sophistication and supports the statement that they are genuine and pure.

VIBRONA CHAMPAGNE.

(FLETCHER, FLETCHER, AND CO., HOLLOWAY, N.)

The analysis of this wine was as follows: alcohol, by weight 10·08 per cent., by volume 12·49 per cent., equal to proof spirit 21·89 per cent.; total solid matter, 1·81 per cent.; mineral matter, 0·13 per cent.; sugar, 0·13 per cent.; fixed acids calculated as tartaric acid, 0·87 per cent.; and volatile acids calculated as acetic acid, 0·0072 per cent. We have not examined a champagne presenting less sugar than is here shown. It is the smallest amount we have ever found in sparkling wines and is practically a negligible quantity. To the palate the wine is exceedingly "dry," just a suspicion only of an added bitter being evident. The wine contains 5 grains of standardised cinchona bark in the form of neutral hydrobromate. This addition in no wise spoils the delicate character of the wine itself, but on the contrary has rather a pleasant effect on the palate. The wine was in perfectly sound condition and possessed, as the analysis also shows, practically no volatile acidity as represented in acetic acid. The sample submitted to us yielded on suitable treatment with solvents the principles of cinchona bark, which occurring in the form of neutral hydrobromate are well tolerated and without the unpleasant effect known as "cinchonism." The wine has a pleasing, delicate, vinous flavour. Its tonic value will be readily conceded from the results of our analysis.

KRONTHAL WATER.

(THE KRONTHAL COMPANY, LIMITED, 66, ST. JAMES'S-STREET, S.W.)

Kronthal Water is derived from the Kronthal springs in the Taunus district, Germany. The waters of the several springs are not identical in composition and character. Thus the degree and kind of "mineralisation" vary. One spring yields an alkaline saline water rich in saline matters, another a similar water but less saline, another an iron water, and another a pure effervescing water which is practically free from common salt. All the waters are now imported into this country in bottles, each being distinguished by a differently coloured label. No salt is added at any step of the bottling process. We have examined samples submitted to us, the first of which was marked with a blue and the second with a red label. The analysis of the sample labelled blue was as follows: total mineral matter 260·40 grains per gallon consisting of 189 grains of sodium chloride, 57·40 grains of calcium carbonate, and 14·00 grains of sodium carbonate. A pint of this water possesses an acid corrective power equal to 14 grains of bicarbonate of soda. The sample of water labelled red has a richer mineral value. The results of analysis were as follows: total mineral matter 327·6 grains per gallon, consisting of 266 grains of sodium chloride, 52·5 grains of calcium carbonate, and 9·1 grains of sodium carbonate. Its acid corrective power is equivalent to 12·5 grains of bicarbonate of soda per pint. Both waters possessed the pleasant soft and delicately saline characters of natural mineral water impregnated with its own natural carbonic acid gas. The waters are of decided merit since they are quite free, as we have found, from any kind of organic impurity and their composition is well adapted to dietetic requirements, especially as diluents on the table. The addition of salt to natural mineral waters containing only a small proportion naturally is a very common recourse, which, however, is unnecessary and superfluous in the present instances. This is a point considerably in favour of waters intended for table use since greater purity is guaranteed by the omission of artificial additions. Our analysis established the purity of these waters.

HOOKER'S MILK WINE.

(THE MILK WINE CO., LIMITED, 9, ARUNDEL-STREET, STRAND, W.C.)

The preparation of this wine is based upon correct physiological principles. In it are contained the peptones derived from the careful digestion of the proteids of milk. According to our analysis the quantity of peptones was equivalent to 9 grains (dry) peptone in one fluid ounce. Further results of analysis were as follows: alcohol, by weight 15·67 per cent., by volume 19·28 per cent., equal to proof spirit 33·79 per cent.; total solid matters, 11·72 per cent.; and mineral matters, 0·78 per cent. In regard to the total solid matter and the amount of mineral matter the wine contains the same proportion as milk. The wine has a sherry-like flavour and possesses "body." It is therefore an agreeable stimulant, modified in the very important respect that it contains a notable amount of well-known nutritive and quickly assimilated substances.

"REFINED SPARKLING GELATINE."

(J. AND G. COX, GORGIE MILLS, EDINBURGH.)

This gelatine yields a clear, excellent jelly when dissolved in hot water and cooled. It is perfectly neutral to the taste and to test-paper. It yields on incineration a white ash which is free from borax and chlorides; the residue, in fact, consists principally of phosphate of lime. The foregoing results afford distinct evidence of the purity of the product. It is therefore well adapted for culinary purposes.

OPMUS BREAD AND BISCUITS.

(JOHN THOMPSON AND SON, SKIRBECK ROLLER MILLS, BOSTON, LINCOLNSHIRE.)

The method of preparation of these foods is particularly directed towards obtaining the highest possible dietetic value afforded by the wheat berry. Accordingly, the proportion of nitrogenous constituents is satisfactory while a maximum proportion of the valuable mineral constituents such as the phosphates is retained. The bread proved to contain 47·73 per cent. of moisture, 6·30 per cent. of albuminoids, and nearly 1 per cent. of mineral matter. The mineral matter contained an abundance of potassium phosphate. In the dried bread the nitrogenous matter would be equivalent to 12·05 per cent. The biscuits presented a similar proximate composition, except, of course, that they contain less moisture and an increased proportion of soluble carbohydrates. The mineral matter amounted to 1·63 per cent. The flavour is very good and the microscope showed the absence of irritating branny particles. The food value of these biscuits is apparent not only on account of the retention of the nourishing constituents of wheat, but because also milk and eggs are used in their preparation.

New Inventions.

THE HOLOPHANE GLOBE.

THE most agreeable as it is the healthiest light is diffused light whether it be from an artificial or natural source. The impact of a direct ray of light upon the eye leads to injurious results in consequence of the constant efforts of the muscles of accommodation of the eye to ward off harmful excess. In spite of the importance of this matter very little regard appears in general to be paid to the kind and character of the light employed for artificial illumination. Commonly a very great excess of light is used and it is concentrated or focussed just upon the area which it is desired to illuminate. Such is invariably the case where writing and reading are concerned. This is true of all classes of illumination, be it electricity, gas, or oil. Even when the eyes are shaded or in the shadows the light reflected upwards is strong and very trying. The Holophane globe is constructed to remove

the ordinary defects of most methods of spreading light. It scatters the light uniformly in any required direction and the absorption during transmission is small. With most globes the absorption of light is enormous, varying from 10 per cent. in the case of clear glass to 74 per cent. in the case of painted opal. The construction and action of the Holophane globe will readily appear from the accompanying diagram. Fig. 1 is a cross section showing the inside ribbing and the manner of diffusing the light. Fig. 2 is a vertical section showing the outside ribbing directing the rays. The illuminated globe has a beautiful and soft appearance. Fig. 3 is a sketch of one particular form, but the principle is applied to all shapes and sizes suitable for electric light, gas, or oil. Although it scatters the rays uniformly in all directions, a very high proportion being transmitted, yet there is nothing that is harsh in its effects upon the eye. There are no sharp shadows. The globe may be looked upon without that sense of discomfort experienced when ordinary opal globes or ground-glass globes are similarly viewed. In regard to efficiency the following may be quoted: A 50-candle power Welsbach light covered with a Holophane globe gives in all directions, from the horizontal to the foot of the light, an average increase of 29 per cent. more light than the bare light, 43 per cent. more light than a clear glass globe, 84 per cent. more light than a ground-glass globe, 169 per cent. more light than an opal glass globe, and 193 per cent. more light than a ground-opal glass globe. According to our experience the Holophane globe gives decidedly the best results with the Welsbach mantle. It affords a distinct economy, since so efficiently yet comfortably is the light distributed as to require a reduced number of burners in a given space. For the electric filament it is not, we venture to think, so well adapted, owing doubtless in this case to the source of light being an incandescent loop instead of a continuous luminous area. For this purpose, however, the spherical globe is the best. With oil lamps the Holophane globe gives excellent results, the illumination being remarkably high, uniform, and subdued in tone. As will be seen, the globe is constructed on well-known optical principles. The globe in reality consists of a series of tiny prisms which gather up and distribute the rays of light in the way they should go, like diffused sunlight, and in accordance with hygienic requirements. The result is a good and uniformly diffused light, healthy, and satisfactory in character. An excellent installation of the Holophane globe may be seen at the show-rooms and offices of the Holophane Company, 91, 93, and 95, Queen Victoria-street, E.C.

FIG. 1.

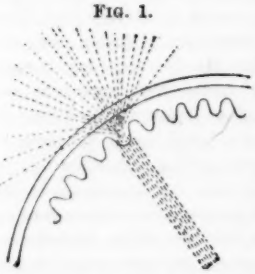


FIG. 2.

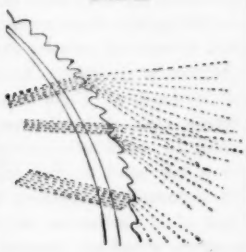
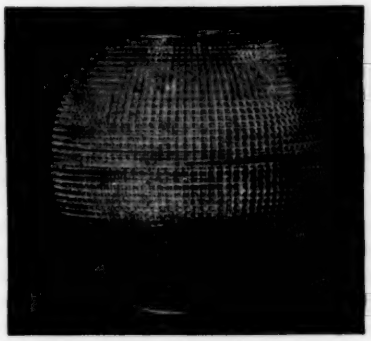


FIG. 3.



A NEW OPERATION TABLE.

LOWERING of the bodily temperature, either from shock or loss of blood or other causes, is often a serious complication in cases of injury and requires to be counteracted by the direct external application of heat, usually in the form of tins or indiarubber bags containing hot water. In the prolonged surgical operations which sometimes have to be undertaken and which are not unfrequently attended by an alarming amount of collapse it is also desirable to ensure a proper degree of warmth as one of the requisites for maintaining the patient's strength. For these reasons it is unquestionably an advantage to have in the operating theatre a convenient reservoir of heat possessing an ample extent of surface, which is constantly in contact with the patient without in any way impeding either examination or operative procedures. With a view to fulfil these various requirements Messrs. Arnold and Sons of West Smithfield have made a new form of operation table, to which they give the name of the Reliance operation table. Its general appearance is shown in the accompanying illustration. It is constructed of iron, enamelled white, and the top, which is also enamelled white, is made double for the purpose of holding hot water. The material of this double top is zinc, and in order to make it capable of carrying any weight with safety it is strengthened internally by a number of arches. This is said to be the first table ever made whereon the patient can be placed in the Trendelenburg position without loss of heat, for the principles of its construction are such that at whatever angle the top may be placed the water remains in the position required.

THE LANCET.

LONDON: SATURDAY, APRIL 30, 1898.

HE is a wise man who is willing to learn even from his enemies, and in the second reading debate on the Vaccination Bill one criticism by an opponent of the measure is worthy the attention both of Mr. CHAPLIN and of the Medical Department of the Local Government Board. Mr. PICKERSGILL in a vigorous and telling speech—curiously different from the utterances of Mr. BAYLEY, the Parliamentary leader of the Anti-Vaccination League and from the oratory of Mr. STEADMAN—prophesied that in a few years glycerinated calf lymph would be discredited, and at the same time he pointed out that the Bill gives no hint of what is meant by the glycerination of calf lymph. If his prophecy is in the very slightest degree to become true it will do so through the neglect to pay sufficient heed to his criticism. With regard to calf lymph glycerine is only a means to an end. The end desired is the practical sterilisation of the lymph excepting as regards the vaccine itself. A mixture of a little glycerine with a little calf lymph by any druggist's apprentice might be advertised and sold as "glycerinated calf lymph," yet it might be any distance removed from "aseptic calf lymph." Dr. MONCKTON COPEMAN and those who have intelligently followed his methods or pursued similar methods have found asepticism by glycerine to be an attainable goal; but who shall say that within the next few years the market may not be flooded by compounds of glycerine and lymph no better than that unfortunate sample the use of which at Rügen some years ago was followed by a troublesome skin eruption, and the well-merited denunciation of which by the late Sir GEORGE BUCHANAN has recently proved a perfect godsend to anti-vaccinationists everywhere. We believe that glycerinated calf lymph has a splendid future of usefulness before it if that future be properly guided and safeguarded, but it is of the utmost importance that no initial laxity shall be allowed to breed mistrust and confusion in the public mind. The Vaccination Bill should take cognisance of this difficulty. All who profess to provide aseptic lymph should be registered or licensed, and their methods and results should be subject to whatever governmental inspection or control may be necessary for the general welfare. We cannot think that properly regulated inspection would be anything less than welcome to all reputable makers who are primarily interested. No doubt another course would be to prohibit the use of any lymph excepting that supplied by Government, but that would raise questions of compensation which Mr. CHAPLIN might not care to face, and it might exercise a deterrent influence as regards original research.

Excepting in one or two points on which he exhibited too uncompromising an attitude Mr. CHAPLIN made a statesmanlike contribution to the debate and showed a very full grasp both of principle and of detail. He seems prepared to agree to the introduction of clauses providing both for the primary vaccination of children entering school, where the operation has not previously been performed, and for the revaccination of children about to leave schoo These additions to the Bill would be of very great value towards the prevention of small-pox. Having indicated his willingness to go so far Mr. CHAPLIN might make up his mind to go even further with regard to two points, one of which would do much to conciliate the medical profession, while the other would do much to conciliate the opponents of compulsion. In THE LANCET of April 16th we stated a case for acceptance of the vaccination work of private practitioners as work done for the State, subject to its fulfilling State requirements. Though no really valid objection has been raised to this proposal it has not yet been accepted by Government. When the adjourned debate is resumed we trust that Mr. CHAPLIN will have seen his way to add this to his scheme. The other point is as to the recognition of declarations of conscientious objection. One very momentous statement which Mr. CHAPLIN made in the course of his speech gives to this question even greater importance than before. But it is necessary to be quite clear here as to what is meant by abolition of penalties. No one would be fined for refusal of vaccination. There would still, however, be fines for refusal alike of vaccination and of the alternative provided for vaccination—namely, the visit to a magistrate or a law court for the purpose of making a declaration of conscientious objection and the subsequent registration of a declaration so made. Under any circumstances, therefore, prosecutions would still require to be provided for. Now, Mr. CHAPLIN announced that in future and altogether independently of the present Bill all prosecutions which may be required under the Vaccination Acts are likely to be conducted by the vaccination officer even in places where boards of guardians are hotly opposed to prosecutions. The officer will prosecute by order of the Local Government Board. In principle we entirely agree with this proposal. It will at once abolish the anomalous conditions at present prevailing by which a man living on one side of a hedge may go scot-free as regards infringement of the law while a man on the other side of the hedge will involve himself in prosecution and penalty for similar infringement. But in practice this proposal may do far more harm than good if it be too rigorously enforced in places where anti-vaccination has been long established. What we suggest is that if prosecutions are to be carried out independently of local authorities a conscience clause should be introduced, and prosecution should take place only where a statutory time for taking advantage of the conscience clause has been allowed to elapse without the necessary declaration having been made. We would not for a moment propose that, a prosecution under such circumstances having once been raised, the defaulting parent should still have this way of escape open to him. Any such extreme facility would be liable to systematic abuse under the guidance of anti-vaccination societies. But if prosecutions are to be instituted all over the country by officials acting independently of local authorities they should

be limited as above indicated, and Mr. CHAPLIN should have all the less hesitation in agreeing to this, looking to the discovery which he has made of the powers existing under the present law. Further, under such a scheme he need no longer have any hesitation in substituting sanitary authorities for Poor-law authorities to carry out all the rest of the local administration of vaccination.

In what we say here we are endeavouring to consider the question as a whole. There would be under the new system the use of aseptic calf lymph; the extension to six or twelve months of the age limit for primary vaccination; domiciliary vaccination; State payment of efficient vaccinations by private practitioners; the recognition of conscientious objection; prosecution independently of local option for neglect to register conscientious objection within a statutory period; the inspection of children beginning school attendance, with the offer of primary vaccination where not previously performed, but again subject to a conscience clause; and revaccination at adolescence, similarly subject to a conscience clause. It seems to us that all this hangs together as a workable scheme, and that the omission of any one part would weaken the whole and make it less likely to be successful in accomplishing the desire alike of the President of the Local Government Board and of the medical profession—namely, that there shall be in this country such approach to a maximum of vaccination and revaccination as may be consistent with a reasonable minimum of friction and opposition.

THE extremely lucid and interesting speech with which the Chancellor of the Exchequer introduced his Budget proposals and the proposals themselves are matters of high interest to all intelligent citizens and not least so to members of our own profession. The mere growth of wealth is a matter of great importance to all classes and especially so to a profession which concerns itself with the physique of the race and is responsible for its health and in some degree for its morals. We are constantly hearing of poverty and competition and the struggle for life, and yet one Chancellor of the Exchequer follows another declaring the ever-increasing scale of the public income, rising to the demand for an ever-increasing expenditure of the public money. The most liberal estimate of the yield of a tax in one year is found to be exceeded by its actual results in the year following; and a surplus of two or three millions has to be disposed of with so slight a clamour for a share of it as to give the Chancellor little help in his delicate task. A generation ago a penny in the income tax used to yield £1,000,000, now it yields £2,150,000. Fortunately men do not necessarily decay when wealth accumulates. It is quite possible to have the opposite result, and we are fain to believe that with all the increase of wealth and even luxury among us there is still no serious deterioration of the national morals or the national health. Drunkenness and the coarser forms of vice, though still far too common, are less so than in former generations. Stimulants are still in demand both for mind and body, but they are of a healthier kind than formerly. Open air, exercise and motion in the open air, travelling, reading, painting, music, all enter into the conception of modern life in a way tha renders it altogether different from the humdrum existence of a few generations back. We are no longer the deepest drinkers of alcohol in Europe. France heads the list now and exceeds us, as do Denmark, Belgium, Switzerland, and Germany. It is to be admitted that our rulers have done much to add to the cost of indulgence in alcohol, and by so much may claim some of the credit of our greater sobriety. But we still drink prodigiously, and in this excess gratify each successive Chancellor by vast contributions to the exchequer representing quantities of alcohol beyond all physiological need of the human body and tending as powerfully to the degradation of morals as to the degeneration of the tissues. In the year which has just closed the exchequer was benefited by an increase of Excise duties over those of the previous year of £840,000, the principal increase being for beer, which amounted to nearly half a million of money.

The Chancellor's present Budget will be remembered in history as the Budget which diminished the tax on tobacco. He had a surplus of £1,786,000, nearly enough to have abolished half the present duty on tea. He cast about for recipients for his favours and he has chosen, first and chiefly, the consumers of tobacco. To this section of the community, excluding nearly all its women and children and a large number of its men, he has given an almost unasked grant of £1,120,000. He has done this with the deliberate hope of not diminishing his own receipts by largely stimulating the public demand for the article which he so favours and which is not one the consumption of which either needs or deserves stimulation. We doubt if this desire will have fulfilment, for the reduction in price on a small quantity will be infinitesimal and will very likely benefit the consumer who buys tobacco by the ounce little more than the doing away with the coal dues benefited the buyers of half sacks of coal. A sermon from us on this action of the Chancellor of the Exchequer would be as ineffective as the one he so pathetically described as preached to the House of Commons by himself on the need for economy, "which produced no more effect than if it had been preached in church." Medical men, whatever their views of tobacco, use it almost as freely as other classes of the community, and although it is a luxury it has arrived at being almost a necessity. In conditions of poverty the "weed" seems to have a charm which exceeds that of actual necessaries—doubtless because it lessens the sense of want. It is pathetic to see the pauper out for the day pick up from the street the refuse end of the cigar that has been thrown down by his more wealthy neighbour. All this may be admitted, and yet some will think that there is enough tobacco consumed already, and that when Sir MICHAEL HICKS-BEACH was casting about for a use for his surplus he might have found a worthier object than the one he has chosen. On the rival merits of tea and chocolate we shall not dogmatise. Both are undoubted boons, and the increased consumption of them would favour the greater sobriety of the country in a way that the increased use of tobacco is scarcely likely to do.

Though we are not inspired with admiration for the chief remission of the Chancellor's Budget we must express our gratitude to him for the small but considerate reductions in

the Income Tax on incomes varying from £400 to £700. We feel that we are being thankful for small mercies, but in the absence of larger ones this is the only exercise for our gratitude. The incomes included in this remission will, we fear, include a large proportion of medical incomes very laboriously and dearly procured, as well as others, and we cannot but regret that the surplus was not used more freely in this way. The turn of the payers of direct taxes must come soon. Meantime it is gratifying to think that they have not been altogether overlooked.

THE governors of the Belgrave Hospital for Children have resolved on an experiment in the administration of their charity which will have the goodwill of all intelligent philanthropists in the metropolis and of the medical profession generally. They have decided to transfer the hospital from Pimlico to a site in Kennington adjoining St. Mark's Church in the Clapham-road. But they have done much more than this—they have determined in the populous locality in which their future operations are to be carried on to try at least to conduct them in accordance with sound principles of charity. His Grace the Duke of WESTMINSTER is the president of the hospital and in a letter to the *Times* of April 23rd he sets forth the views of the governors in a way which ought to secure a sympathetic and substantial response from the public and especially from those in the South of London who can afford to be charitable. A fuller statement of the scheme for the reconstitution of the Belgrave Hospital for Children in South London is before us, of which the principal features may be thus summarised. The general administration of the hospital will be in the hands of the committee of management which will also appoint the medical staff. The Committee will include the physicians and surgeons and three other members of the staff. It is well known that the provision for hospital treatment of the sick poor in the south of London is very inferior to that in other parts and this attempt to redress the grievance deserves every encouragement. According to the Duke of WESTMINSTER'S letter the people of the north side of the Thames have nearly four times as much hospital accommodation for their children as those living on the south side of the river.

But it is principally on account of the determination of the governors to face manfully the question of hospital abuse that we commend this hospital to the support of all liberal men. In the admission of both in-patients and out-patients a serious effort will be made to include only those classes who really need hospital accommodation. A wage-limit scale has been drawn up, but in cases of long illness or of a serious operation it will not be pressed if a recommendation is forthcoming from a medical practitioner that the patient is deserving of charitable treatment. Much stress will be laid in all cases on the recommendation of medical men. Both they and the representatives of charitable institutions will be invited to coöperate with the governors in preventing the abuse of the hospital. Coöperation with medical men—not competition—will be the key-note of administration. And where a medical man has a patient whose case is obscure or difficult and the parents are too poor to pay a consultant's fee, it is proposed that he may send or take his patient to the hospital and there have a consultation with one of the staff. This is a much-needed arrangement in every part of London and the provinces. The patient would by it secure the advantage of a hospital opinion and yet his self-respect and his connexion with his regular medical man would be left intact. It is intended to restrict the number of new out-patients seen in a day, preference being given (1) to those most seriously ill, (2) to those sent by medical practitioners, and (3) to those bringing certificates from governors. Great precautions will be taken to prevent the out-patient department being a medium for the diffusion of infectious disease, a special waiting-room being provided for suspicious cases. In the case of the in-patients, too, special precautions will be taken by means of a "resting ward" and isolation wards to minimise as far as may be the risk of infection spreading. Another feature of the new administration is to provide a training for nursemaids, such as will supply that important class of servants with some knowledge of the proper methods of rearing infants and nursing them when they are ill. Very properly it is intended to reserve some privileges for the Pimlico district in which many of the supporters of the hospital reside. We venture to hope that a hospital so much needed and to be conducted on principles so sound will soon get the £50,000 which the Duke of WESTMINSTER says will be necessary to carry the scheme into effect.

Annotations.

"Ne quid nimis."

SOLDIERS' BOOTS.

MR. G. W. STEEVENS, the Soudan War Correspondent of the *Daily Mail*, gives a lamentable account of our soldiers' footgear. In a recent letter he says: "What might have been avoided, and should have been, was the scandal that the men's boots gave out. ..... When the three battalions and a battery arrived in Berber hundreds of men were all but barefoot; the soles peeled off, and instead of a solid double sole revealed a layer of shoddy packing, sandwiched between two thin layers of leather." It is true, Mr. Steevens goes on to say, that the Soudan climate is particularly destructive of all things stitched and that the soldiers had done a great deal of marching, but, on the other hand, they had only been "up river" about a month, "and no military boot ought to wear out in a month." The footgear of a marching army is unquestionably the most important part of the whole equipment, and yet whenever our troops are engaged on active service there are pretty sure to be complaints more or less bitter regarding its quality and durability. The Egyptian soldiers wear a riveted boot which apparently is able to withstand the climate as well as the long marches across the desert. If this is correct it is strange, to say the least of it, that the experience thus ready to hand was not utilised for the benefit of our infantry when they were ordered to the front. It is poor economy to grudge a little extra expenditure on soldiers' footgear, especially when the men are about to proceed into regions where transport is the chief difficulty. "Boots are always the most pressing need on a campaign," said the great Napoleon in a letter to Prince Eugène de Beauharnais, and in order as far as possible to guard against a deficiency the prescient commander ordered the provision of eight pairs of boots for

each foot soldier. Napoleon's famous rival was likewise deeply anxious that his men should be well shod. "What is the most essential thing for a soldier?" asked a member of the Government of the Duke of Wellington. "A good pair of boots to begin with," replied the hero of Waterloo; "and in the next place a second pair of boots; and thirdly, a spare pair of soles." Alexander's victorious army reached India on sandals and to this day a similar flimsy foot-protector is generally worn in eastern countries, but the ideal boot for a modern soldier should be impervious to moisture, stout and yet pliable, accurately shaped, and constructed of the most durable material. It should also be easily put on and taken off, should prevent the entrance of dust, sand, or mud, and, above all, favour the free play of each pedal articulation, while at the same time affording support to the muscles of the foot and ankle collectively. An ill-fitting, clumsily shaped boot is worse than none at all. Undue pressure or friction at any point quickly leads to corns and lameness. Formerly bunions and in-growing toenails due to pointed boots and shoes were common causes of a halting gait amongst the population generally, but of late years more attention has been given to the anatomical features of the foot, especially in growing children. Deformed feet are, however, still of frequent occurrence in the ranks, each case demanding special treatment; but it should be an invariable axiom with officers commanding companies that boots should be made to fit the feet and not *vice versâ*. The following recipe for making boots both soft and waterproof was recommended by Edmond Parkes, and amongst *laudatores temporis acti*, at all events, it still holds first place: "Take half a pound of shoemakers' dubbing, half a pint of linseed oil, half a pint of solution of india-rubber; melt together with care and rub in firmly." The indiarubber solution is highly inflammable, requiring attention during the melting process. Mr. Steevens's concluding remarks are noteworthy: "It is always the same story—knavery and slackness clogging and strangling the best efforts of the British soldier. To save somebody a few pence on a boot you stand to lose a good rifle and bayonet in a decisive battle and to break a good man's heart into the bargain. Is it worth it? But it is always happening; the history of the army is a string of such disgraces; and each time we arise and bawl 'Somebody ought to be hanged.' So says everybody. And nobody ever is hanged." In answer to a question asked in the House of Commons on April 19th Mr. Powell Williams said that the boots supplied to the army in Egypt were not shoddy but made of the best English hide. Between the inner and the outer sole strips of leather were inserted to give elasticity. The *Times* of April 28th contains a letter from its special correspondent, dated Atbara, April 11th. He says that the most searching inquiry should be made, that the soles came away from the uppers, and this after six weeks' wear. Perhaps Mr. Powell Williams will make inquiries.

A TIMELY PUBLICATION.

THOSE who have read the Final Report of the Royal Commission on Vaccination, together with the appended statement of the two dissentient members of the Commission (Dr. Collins and Mr. Picton), will, it may be hoped, also peruse the very exhaustive and convincing criticism of the latter made by Dr. J. C. McVail in a paper, read before the Epidemiological Society of London, which has just been separately published.[1] It may be recalled that the conclusion arrived at by the "dissentients" was that there was insufficient ground for the compulsory enforcement of vaccination and they recommended the repeal of the compulsory clauses of the Vaccination Acts without, however, interfering with the rest of the machinery which would permit those desirous of being vaccinated to be vaccinated; in other words, that vaccination should be voluntary but that the State should still maintain its establishments and encourage if it did not enforce the performance of vaccination. The route whereby such conclusion is reached traverses the whole of the ground covered by the Commission—historical, statistical, and theoretical, and step by step Dr. McVail follows the two Commissioners' statements, showing where fallacies have crept in and where errors of judgment have been committed. The publication is a timely one in view of the action of the Legislature, for, although ostensibly a "review," the *brochure* enables the reader to glean much information upon the whole subject, and we can heartily commend it as a brilliant exposition and able criticism of the most powerful plea against general vaccination which has been, and which probably can be, advanced.

[1] The Report of the Royal Commission on Vaccination: A Review of the Dissentients' Statement. By John C. McVail, M.D. London: P. S. King and Son. Price 2s.

DEATH OF SIR VIVIAN MAJENDIE.

BY the sudden death of Sir Vivian Majendie at Oxford last Sunday the Government and the country have lost a valuable adviser and expert. No one was more familiar with the distinctive properties of the great number of explosives now in existence than Colonel Majendie and his plucky investigations were invariably carried to an instructive issue without personal harm. We have frequently had occasion in these columns to refer to his work on matters concerning the public safety and quite recently we drew attention to the important conclusions to which he had come on the petroleum lamps accidents question, conclusions which were in entire agreement with those arrived at by THE LANCET Analytical and Sanitary Commission on Dangerous Paraffin Lamps, the report of which appeared in this journal on Jan. 4th, 1896. Only last week he gave evidence before the Select Committee and was cross-examined as to the objections he entertained against raising the flash point of illuminating oil. This cross-examination was not concluded, and the Select Committee must deeply regret having lost one who was probably their most valuable witness. The public will remember Colonel Majendie as the Chief Inspector of Explosives to the Home Office, whose business it was to deal with the explosions which occurred on the Underground Railway, at public offices, and elsewhere, and with those dastardly outrages which are now and again committed by mad and miscreant individuals.

THE EARLY DIAGNOSIS OF MEASLES.

HE would be a great benefactor who would discover a sure sign or symptom of measles at an early stage of the disease. The *New York Medical Record* of April 9th has an original article by Dr. Henry Koplik, attending physician of the Good Samaritan Dispensary, New York, on a New Diagnostic Sign of Measles. This physician thinks that he has discovered an unfailing and pathognomonic indication of the disease which is to be seen two or three days before the appearance of the eruption. The epidemic which rages amongst us just now will enable our readers to verify or otherwise the interesting observation of Dr. Koplik. The sign is to be found in the mouth—*limited to the mucous membrane lining the cheeks and lips*—and is thus described by him: "It consists of small, irregular spots of bright red colour; in the centre of each spot is the interesting sign to which I call attention. In strong daylight we see a most minute bluish-white speck. These minute bluish-white specks in the centre of a reddish

spot are absolutely pathognomonic of being measles. I have never met them elsewhere and when once seen they are a certain forerunner of the skin exanthema." The spots are not to be confounded with the red spots seen on the palate and fauces commonly enough in measles. Dr. Klopik says that the observation of these spots by himself and friends has been useful in the way of early separation of cases and limitation of the spread of the disease. But even if his account be confirmed the spots do not occur in most cases till within one, two, or three days of the eruption, when probably the infection has been communicated to others. The eruption is really generally anticipated for several days by well-known symptoms, such as cough, sneezing, red eyes, pyrexia, &c. Still, every minute clinical observation is valuable and tends to the perfection of medical science and service.

THE BLOEMFONTEIN COTTAGE HOSPITAL.

ON April 4th Sir Alfred Milner, the Governor of Cape Colony, opened the Victoria wing of the St. George's Cottage Hospital, Bloemfontein. The original hospital consisted of a general ward of four beds, two private wards, a convalescent room, dispensary, dining-room, sister's and nurses' room, a kitchen, and offices. Last year the sum of £1800 was collected in honour of the Diamond Jubilee—a large sum for a little up-country town. Of this £1200 were handed over to the hospital, £400 were used to pay off a mortgage, and £800 were expended on the new wing, which comprises two nurses' rooms, a general ward of four beds, one private ward, and a linen cupboard. The new wing is a great addition to the hospital and the townspeople of Bloemfontein are to be heartily congratulated.

THE THERAPEUTIC AND TOXICOLOGICAL EFFECTS OF CHINOSOL.

AN investigation which throws light upon the properties of any new antiseptic will be welcomed by the members of the medical profession in, it may be, warning them as to its drawbacks whilst also pointing out its advantages. Chinosol is now largely employed as a powerful and convenient antiseptic and it is said to possess very distinct advantages over other antiseptic compounds previously in use. It is a yellow powder of definite chemical composition, soluble in water, and containing a quinoline group in combination with potassium and the sulphate radical. Its antiseptic, disinfectant, and deodorant properties have been determined with very satisfactory results by Dr. Klein. It is important next to turn to its properties in practice and on this important question Professor Hobday, F.R.C.V.S., of the Royal Veterinary College, has contributed an interesting and instructive paper to the March number of the *Journal of Comparative Pathology and Therapeutics*. His experiments related to dogs, cats, and donkeys. The internal administration of chinosol to human subjects has been tried by Dr. Cipriani, whose results are recorded in THE LANCET of Nov. 27th, 1897. In this communication the treatment of tuberculosis with chinosol administered by the mouth or injected locally was followed by a rapid and apparently permanent improvement. The summary of Professor Hobday's results is as follows: 1. Chinosol acts well as an antiseptic, disinfectant, and deodorant when used in certain proportions. 2. Its action is better marked when used as a lotion than when used as a powder. 3. The powder is not suitable for use on fresh wounds unless diluted in some way or other. 4. For the disinfection of instruments care must be taken not to make the solution too concentrated. With instruments care must be taken, Professor Hobday finds, that the solution should be of definite strength, as otherwise the instruments lose their edge and the handles become discoloured and rough to the touch. 5. The drug possesses toxic properties. 6. If used subcutaneously in too concentrated a form chinosol will produce local irritation and swelling. The strength recommended for subcutaneous injection in human practice is from 1 in 600 to 1 in 200, and certainly in veterinary patients this should not be exceeded. 7. The cat is very susceptible to its action and in this animal much more care is necessary to guard against toxic symptoms than in the case of the dog. In the cat, if subcutaneously injected, the extreme limit of dose should be one-sixteenth of a grain for each pound body weight and in the dog one-eighth of a grain per pound. 8. Chinosol is not rapidly absorbed from the unbroken skin of the dog and can be applied for several days in succession, even in fairly concentrated solutions, to the skin of this animal without producing eruptions or sores. 9. The chief symptoms of poisoning are: sneezing and coughing and increased flow of thick, ropy saliva; subnormal temperature; staggering gait, commencing with loss of motor power in the hind-quarters; great prostration, and ultimately death from failure of the heart's action. 10. The chief post-mortem characteristic is the smell of chinosol on or in some part of the body, whilst another symptom to be looked for is the presence of frothy saliva in the pharynx, œsophagus, or stomach.

MANCHESTER AND SALFORD HOSPITAL FOR SKIN DISEASES.

AT the annual meeting of the Manchester and Salford Hospital for Skin Diseases held on March 4th the report of the committee for 1897 stated that there had been 3149 new patients, as against 3271 in 1896—a decrease of 122, which was attributed to more careful inquiry into the claims of the applicants for charitable relief. It is well that hospital managers should do their share in checking the abuse of hospitals by well-to-do and shameless people. One point brought out is the great extent to which the hospital—in common with other Manchester charities—is "bled," as Dr. Brooke put it, "by the neighbouring towns, which sent large numbers of patients but whose contributions were almost *nil*." It was said that the mayors of several towns had been written to on the point but that not a single reply had been received. Bolton sent 340 patients, Bury 192, Crewe 163, Northwich 139, Warrington 206, Macclesfield 153, Oldham 226, Rochdale 169, and Stockport 417. It is not quite fair that the places named should draw upon the charities of Manchester for the medical relief which they themselves are well able to afford. As is too commonly the case, "the committee regretted, however, that the expenditure still exceeded the receipts" by nearly £500, and a strong appeal was made for more subscriptions.

ABSENCE OF PYRAMIDAL DECUSSATION.

DR. PHILIP ZENNER of Cincinnati relates in a recent number of the *Neurologisches Centralblatt* the case of a patient who was under his care on account of slight left-sided paralysis. He was a man, aged thirty-three years, a waiter, whose condition was such that no reliable history could be obtained of the onset of his illness. It was found out later, however, that there had been a series of apparently Jacksonian fits affecting the left side about a year before his admission to the hospital. When he was admitted there was a slight dragging of the left foot as he walked, the left hand was weaker than the right, there was left-sided facial weakness, especially in the upper part of the face, but no reaction of degeneration. The tongue was protruded to the left and there was apparently some difficulty in deviation of the eye to that side. There was no impairment of sensibility. Percussion of the skull revealed the fact that there was considerable pain on the

left side and the patient complained of headache over the frontal region and in the left temporal region. Intelligence was impaired and any answers were given very slowly. There was what is called "congestion" of the papilla with widening of the arteries and veins, but no distinct optic neuritis. He remained two months in hospital without changing much. He was stupid, often melancholy, and there was a tendency to somnolence. He died about a month later in an asylum and a tumour was found over the central region situated under the dura mater and apparently compressing but not destroying the convolutions. It was a glio-sarcoma and was situated on the left side of the brain. A careful examination of sections of the medulla and the upper region of the spinal cord by Dr. Kramer revealed the curious fact that there was no decussation of the pyramids, thus accounting for the presence of paralytic symptoms on the left side in a case in which the cerebral lesion was on the same side.

DR. W. G. ROCKWOOD AND THE CEYLON MEDICAL SERVICE.

DR. W. G. ROCKWOOD, who recently retired from the post of colonial surgeon and also that of surgeon to the General Hospital, Colombo, has just been appointed consulting surgeon to the same institution, an office newly created by the Government "for long and distinguished services." Dr. Rockwood, who is a pure Tamil, graduated at the University of Madras and entered the Ceylon Medical School in the same year (1866). He took the degree of M.D. at Madras in 1872 and became M.R.C.P. Lond. and M.R.C.S. Eng. in 1885. For the last twenty years he has been surgeon to the General Hospital, Colombo, and Lecturer on Surgery in the Ceylon Medical College. He has, in addition, just been appointed by his Excellency the Governor to be an unofficial member of the Legislative Council of Ceylon to represent the Tamils. The medical profession will, we are sure, join with us in congratulating Dr. Rockwood upon the honour which he has so worthily attained.

THE CONTROL OF MEASLES AND WHOOPING-COUGH BY SCOTCH SANITARY AUTHORITIES AND SCHOOL BOARDS.

A CORRESPONDENCE of considerable importance and significance in the direction of the prevention of disease has recently passed between the clerk to the Montrose Landward School Board and the Scotch Local Government Board, the question at issue being as to whether measles and whooping-cough are to be held to be infectious diseases within the meaning of the Public Health (Scotland) Act, 1897, even although a sanitary authority may not have added these two diseases to those notifiable under the Notification Act. The necessity for deciding this point arose out of the provisions of Section 57 of the Public Health Act, which, *inter alia*, imposes a penalty upon parents and school teachers who knowingly permit a child to attend school who has been suffering from infectious disease or who has been residing in a school where such disease exists, unless the child in question produces a certificate from a medical officer of health or a medical practitioner stating that he or she is free from infection. The certificate in the case of the medical officer of health has to be provided free of charge. The Scotch Local Government Board have, we are glad to see, no doubt as to the interpretation to be placed upon Section 57 and they have laid it down that its provisions are in no wise limited to the definition of infectious disease contained in the Notification Act. They regard both measles and whooping-cough as dangerous infectious diseases and the school teachers are to have regard to the provisions of section 57 when dealing with these diseases. We welcome this decision as a move in the right direction, though we fear that in times of epidemic measles or whooping-cough the medical officer of health will have a somewhat busy time; doubtless, however, his emoluments will be correspondingly increased. The gradual growth of public opinion in favour of controlling those infectious diseases which hitherto have been allowed to run riot as their natures prompted them is one which will have to be encouraged gently and discreetly by the public health service. Reform lies rather in the direction of educating the public to the necessity for caution than, in the first instance at least, in resorting to injudicious prosecution. If we are to reduce the mortality from such diseases as measles and whooping-cough the exercise of tact on the part of the medical officer of health is of the utmost importance, and it is only by this means that we can gradually educate the public for the more stringent measures which may ultimately have to be taken.

ACUTE PANCREATITIS.

ACUTE pancreatitis is not a very common disease and sudden deaths occurring from this cause always have a pathological interest. The *Hong-Kong Weekly Press* of March 26th contains an account of an inquest held upon the body of Alfred Feltham, the wardmaster of the Government Civil Hospital, who was found dead in his quarters at the hospital on March 17th. Dr. Atkinson, the principal medical officer, in his evidence said that he was summoned in the afternoon to see Mr. Feltham. He found him lying dead on the sofa. At the post-mortem examination made on the following day, at which he was present, the cause of death appeared uncertain and the stomach and contents were handed over to the Government analyst. Mr. Frank Browne, the Government analyst, deposed to examining the contents of the deceased's stomach: it contained 19 gr. of chloral and $\frac{1}{4}$ gr. of morphia. He had last seen deceased alive at midday on the 17th. Dr. J. A. Lowson, who made the post-mortem examination, deposed to finding acute inflammation of the stomach and pancreas; in the head of the latter there was a large hæmorrhagic extravasation. The condition found could not have been caused by either chloral or morphia and in all probability the deceased could not have taken more than 30 gr. of chloral for the absorbing powers of the stomach must have been considerably impaired. The cause of death was syncope in acute gastritis and pancreatitis possibly accelerated by a medicinal dose of chloral. The presiding magistrate gave his finding in accordance with this evidence.

THE REPEAL OF THE CONTAGIOUS DISEASES ORDINANCE IN SINGAPORE.

IN a paper addressed to the Secretary of State for the Colonies Mr. William Adamson, chairman of the Straits Settlements Association, shows that venereal disease has greatly increased in Singapore since the repeal of the Contagious Diseases Ordinance and he declares it to be the belief of the association that the Ordinance ought to be again put in operation without delay. In the colony the main provisions of the Ordinance were repealed in 1888, leaving only to the Government the right of registration and the inspection of houses of ill-fame, but in 1894 (Women and Girls Protection Ordinance Amendment Bill) this right was withdrawn and since then there has been no inspection or control exercised beyond what is provided for by the common law. The repeal of this Ordinance was in obedience to the course resolved upon in England and under the peremptory orders of the Colonial Office, but it was done against the protests of the Colonial Government, of the non-official members of council, of the naval and military officers, and of the civil and military medical staff. Some results of the repeal are made evident by the fact that during

the five years 1884–88 inclusive, when the Ordinance was in operation, out of an average of 615 English soldiers in the Tanglin Barracks in Singapore the admissions to hospital for primary syphilis, secondary syphilis, and gonorrhœa were 144 per mille, whereas during the last five years, 1892–96 inclusive, which have elapsed since the protective legislation was abolished out of an average of 682 men in barracks the average admissions to hospital for the same diseases were 434 per mille. The admissions to hospital per mille for these diseases during each of the years comprised in the above period were as follows: 123 in 1884, 81 in 1885, 69 in 1886, 161 in 1887, 287 in 1888, 330 in 1892, 265 in 1893, 348 in 1894, 617 in 1895, and 567 in 1896. There is a considerable amount of evidence to the effect that the prostitutes, of whom there are more than 3000 in Singapore, are practically in a state of slavery to the mistresses and that the hardships of their position were mitigated by the enforcement of the Ordinance.

THE LATE SIR RICHARD QUAIN AND THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

As stated in our report of the proceedings of the last Comitia of the Royal College of Physicians of London, the College was enriched by a gift bestowed by the late Sir Richard Quain a few weeks before his death—an act which testifies to the attachment he bore to the College. The gift referred to consists of four pieces of plate, one a handsome silver bowl inset with medals gained by him during his collegiate and university career. The most striking piece is a beautiful candelabra fitted for the electric light which was a gift to Sir Richard Quain from a grateful patient, as also was a silver salver. Another silver salver bears an inscription stating that it was presented to him by the Pathological Society for services rendered to it as honorary secretary. At the time of his death Sir Richard Quain was, we believe, the last of the original members of this Society which celebrated its jubilee in 1896.

ICTERUS GRAVIS.

WE publish this week two most unusual cases. One, a case of acute atrophy of the liver related by Dr. William O'Neill, presents several points of interest apart from the rarity of the disease. Great intensity of pain is not usually experienced in acute atrophy of the liver and the duration—five days—is very short. Dr. O'Neill's comments on his case are well worthy of perusal. He maintains that this condition is a general disease in which all the organs of the body suffer more or less and in all probability micro-organisms of a malignant character are the exciting cause of the malady. This is the view taken by most modern writers. The second case is recorded by Dr. E. O. Daly. He heads his article, "A Case of Icterus Gravis." As is well known, cases of jaundice assuming a malignant course do occur either in endemic or epidemic form. Dr. Hunter, writing in Professor Clifford Allbutt's "System of Medicine" (vol. iv., p. 114), draws attention to the same point, instancing the extensive epidemic outbreak of jaundice which occurred in Saxony and Dresden in the autumn of 1889 when no fewer than 518 persons were attacked. He considers that the evidence of acute yellow atrophy being a rare form of malignant jaundice of obscure infective nature outweighs that in favour of any other theories which have been advanced. Dr. Daly's case was a very acute one, proving fatal in three days. Unfortunately no post-mortem examination was allowed, so that the exact condition of the liver and kidneys could not be determined. The only diagnosis which could be arrived at was icterus gravis and Dr. Daly's arguments in this respect are perfectly sound. We should feel inclined from our perusal of the case as reported to support this diagnosis and to refer its pathogeny to a micro-organism. It is evident that there was a virulent organic poison, probably formed within the intestinal tract, the first symptom being vomiting. There was no diminution in the liver dulness; neither leucin nor tyrosin was found in the urine and subsequently there was complete suppression of urine; all these points, as Dr. Daly remarks, point away from acute yellow atrophy of the liver, so this case differs very materially from the one under the care of Dr. O'Neill. A comparison between the two cases is most valuable and it is fortunate that it was possible to publish them together.

STREET NOISES.

THE municipality of Brighton is making a most laudable effort, and one which we earnestly hope will succeed, to deal with the curse of unnecessary street noises. A proposal was submitted to the town council on April 21st providing for a penalty of £5 being inflicted upon anyone who in offering goods for sale in any public thoroughfare should make "any loud or continuous outcry or noise or importune any person so as to be or to cause a nuisance or annoyance to any of the inhabitants." A similar penalty was proposed to be recoverable from any persons who after being requested to desist from playing any musical or noisy instrument, or singing or shouting in any street within 100 yards of where any persons may be assembled in any place of public worship or public hall or hospital or similar place. This last proposal is, to our thinking, not strong enough. Persons making these abominable noises should be requested to go away and fined if they do not whether there are any persons assembled for public worship or not. Still, however, the action of the Brighton authorities is a long step in the right direction, and we see that the proposal was carried by 35 votes to 11. It will, however, require the sanction of the Local Government Board before becoming operative. The unfortunate people who have to live in London, except the favoured dwellers in Montagu-square, are at the mercy of any lazy loafer who likes to buy a few newspapers or drag an organ about. The London County Council have had the matter "under consideration" for some time and they might at least try to stop the nuisances which we have indicated. There is no possible excuse for the newspaper "runners," for plenty of street newspaper hawkers sell their goods without yelling and make a livelihood thereby.

MEMBRANOUS STOMATITIS.

THE frequency of true diphtheria and other inflammations attended by formation of false membrane in the throat is in marked contrast with the rarity of such affections in the mouth. In the *Journal of the American Medical Association*, March 19th, 1898, Dr. L. Jurist has published a case of membranous stomatitis which, though it clinically resembled diphtheria, was caused by the streptococcus pyogenes. A woman, aged twenty years, had an attack of vomiting and diarrhœa which yielded to treatment. Shortly afterwards the tongue began to swell; it increased to such an extent as to cause alarm lest she should be choked. The tongue was enormously swollen and protruded in a thick mass from the mouth; the appearance of the patient was anxious and distressing. The floor of the mouth and the under surface of the tongue were covered by a thick greyish membrane. There was a repulsive odour from the breath, the pulse was rapid and feeble, and the temperature was 101° F. For two weeks the general condition remained the same. The membrane spread to the inner surfaces of the lips and cheeks. There were frequent slight hæmorrhages which became freer if portions of the membranes were forcibly detached. The submaxillary lymphatic glands were enlarged, and a well-marked œdema involved the entire face and neck, extending from ear to ear. As the patient improved an examination of the throat became possible. Two oval, distinctly outlined patches were

seen on the hard palate but none on the soft palate or tonsils. After the failure of other remedies the application of nitrate of silver combined with the administration of chlorate of potash proved successful. Twice there was copious bleeding from ulceration of the tongue which was beneficial, being followed by subsidence of the inflammation. Bacteriological examination showed streptococci in conspicuous numbers but no diphtheria bacilli. A case of true primary diphtheria of the mouth has been reported by M. Thiercelin. A woman complained of pain on opening the mouth and had anorexia and a little fever. The lower surface of the tongue, which was not swollen, and the floor of the mouth were covered with a whitish-grey membrane. There were membranes on the cheeks, gums, and lower lip. The disease did not extend beyond the pillars of the fauces. The submaxillary lymphatic glands were swollen, mastication was impossible, and intense fœtor and salivation were present. Diphtheria bacilli were found in abundance in the membrane. M. Sevestre and M. Gaston have reported a series of cases of membranous stomatitis which constitute a special form denominated by them "stomatitis impetigi-nosa." It attacked debilitated children, especially those recovering from measles or whooping-cough. A whitish adherent membrane similar to diphtheritic exudation formed. The tongue was rarely attacked. In nearly all cases the disease was associated with impetigo of the face. The staphylococcus pyogenes aureus was found in every case.

THE VALUE OF THE RECEPTION-HOUSE OF ST. GEORGE'S, SOUTHWARK.

THE patron saint of England has for many years undergone undeserved neglect at the hands of the country who adopted him as her protector. But this year his day was more generally observed than for many years past and two incidents in which his name figures have been prominently brought to our notice. We give an account in another column of the opening of a new wing forming part of the cottage hospital dedicated to St. George at Bloemfontein, and only the other day the vestry of St. George's, Southwark, had to congratulate their medical officer on an outbreak of typhus fever being averted. In THE LANCET of Feb. 5th, 1898, we gave an account of the reception-house recently erected in that parish for housing those persons who are evicted for disinfection purposes, and the value of this building was exemplified at the meeting of the vestry held on April 19th, at which it was reported that a case of typhus fever imported from Kensington had occurred in a four-roomed house containing four families. These families were removed to the reception-house and their own house was thoroughly cleansed and disinfected. So far no fresh case of typhus fever has been notified. We may incidentally mention that Dr. Waldo did not present any statistical report, for the report had not been before the public health committee and he was not "allowed" to present it to the vestry until the committee had seen it. This somewhat curious method of procedure, however, makes no difference to the value of the reception-house, and we hope that other parishes in London will follow the example of St. George's, Southwark, and provide like buildings.

COCAINE POISONING.

CASE are from time to time reported of deaths from cocaine poisoning. Many of these have occurred in medical men who have treated themselves with the drug for purposes of relieving pain and have by accident or design injected an overdose. An instance of this kind occurred a few years back. The body of a young medical man was found at a railway station. In his hand was a hypodermic syringe containing morphia which he had evidently been about to inject as an antidote. He had been accustomed for some time to inject cocaine for the relief of neuralgia. On April 18th, 1898, Dr. G. Danford Thomas held an inquest at Paddington on the body of the wife of a medical man who had died after drinking a solution of cocaine. Eight weeks previously she had swallowed a quantity of laudanum from a phial which she found in her husband's bag, assigning no reason for doing so but telling him immediately after the act. Antidotes were applied and she recovered. On the evening of April 13th she remarked to her husband: "I am feeling ill," and she produced a small bottle from her pocket containing a solution of cocaine which she had abstracted from the bag whence she had obtained the laudanum previously. Both bottles were duly labelled "Poison." She said she had taken cocaine and asked that a medical man might be fetched, but all treatment was unavailing. All experience shows that a good deal of care is requisite in administering cocaine as it has again and again happened that small amounts of the alkaloid have given rise to the most threatening symptoms. Two-thirds of a grain injected subcutaneously caused the death of a woman, aged seventy-one years, in five hours, and a man died almost immediately after taking 22 grains by the mouth. Persons, however, habituated to its use can take increasingly larger doses. Among the most striking manifestations of its threatening characteristics are abnormal exaltations of the feelings, loquacity accompanied by mental incoherence, severe sweating, fall of temperature, shallow and irregular respiration, dilatation of the pupils, disturbance of vision, nausea, feeble pulse, and ultimately collapse. In persons suffering from these symptoms stimulants should be given. The inhalation of choloroform has been tried to relieve the spasms. Nitrite of amyl has also been suggested. Some medical men make it a practice to give a preliminary hypodermic dose of from ⅛ to ¼ grain of morphia, according to the age of the patient. The physiological antagonism between the drugs is pronounced, so that while morphine is not an absolute antidote it is at least most valuable in counteracting the toxicity of cocaine.

OCULIST SEALS.

ANOTHER seal of a Roman oculist has been discovered recently in France and is published in the *Journal of the French Society of Antiquaries* by M. Héron de Villefosse. Unfortunately the owner's name is illegible, but the inscription preserved presents us with the titles of certainly three, and perhaps four, well-known classical collyria. The text is as follows: "Diapsor: Crocodes: E—— L—— Nardinum." The first of these remedies, diapsoricum, from Διὰ ψωριχός, and therefore a substance whose basis was copper, was, we know from the seals, used in cases of feebleness of vision (caligo) and as a cure for scabrities and sycosis, for which see Celsus, VI., vi., 31, and Dioscorides, V., 116, col. 781. The second ingredient, crocodes, was applied for what was termed "aspritudo"—that is to say, palpebral granulations (trachoma), and is so alluded to in several seals and among the medical classics; by Aetius, I., iii., 43 col., 318 H; Marcellus, VIII., col. 280; and Celsus, VI., 6, 27. It is also quoted as a cure for diathesis (διάθεσις), which in reference to ocular disease merely indicated a morbid condition of the eyes. Of course it was Κροκος, saffron. Nard on the seals is always prescribed as a remedy for "lippitudo," incipient ophthalmia, or ophthalmia itself, see Actuarius V., 11, col. 282. The letter E, followed by a lacuna, may be the first letter of Euodes, or Euvodes, but this is merely a surmise. However, that is the only hitherto known of the collyria commencing with E referred to upon oculists' seals. A most interesting memorial of a Roman military medical officer attached to the celebrated VII. Claudian Piafidelis Legion has also been found at

Turn Severin. It is a lapidary inscription which, "with all reserve," may be approximately translated thus: "To the divine shades Marcus Valerius Longinus (son of Marcus), physician of the VII. Claudian Legion, adorned with the Senatorial ornaments of the illustrious order of the Hadrian municipality of Drubetis, lived 23 years."

THE PREVALENCE OF GERMAN MEASLES.

IT is well to remember that there is a good deal of this disease abroad. Sometimes it is taken for a second attack of measles. We have seen lately the rapid succession of the two complaints within six weeks' time. In such instances the disease is more likely to be narrowly examined and a mistake in diagnosis to be avoided. In other cases the diagnosis is not quite so easy. At one time the existence of scarlet fever is apt to be assumed and the patient possibly is sent to a hospital as so affected. In doubtful cases a little time and care will be well spent before deciding on the non-existence of true measles or of scarlet fever. After all, the differentiation can generally be made, though we have in exceptional cases to wait for the evidence of the more decided desquamation of scarlet fever. The absence of severe coryza and of high temperature, plus the different nature of the rash and the enlarged glands behind [the sterno-mastoid, will generally guide the physician aright as between German and ordinary measles, as the absence of serious sore-throat and pyrexia will help him to exclude scarlet fever. The incubation stage seems longer than that of measles and of course much longer than that of scarlet fever. According to the report of the committee of the Clinical Society of London the interval between the exposure to infection and the appearance of the rash is generally nearly three weeks.

THE LIVERPOOL CORPORATION AND THEIR WATER CUSTOMERS.

AN interesting appeal case was heard at the Liverpool County Quarter Sessions last week with regard to the Liverpool water-supply. The Liverpool corporation supply water not only to the city but to certain districts around and under a section of the Corporation Act of 1866 they are bound to supply water at constant service at such a pressure as to reach the top storey of any house situated within the district supplied by them unless the service is interrupted by drought or by frost. Some time ago an inhabitant of Prescot, which is in the district supplied by the corporation, commenced an action at the Prescot police-court to compel the corporation to carry out their statutory duties. The case was taken to the Divisional Court in London and was decided in favour of the complainant. After this decision the members of the Conservative Club of Prescot were encouraged to bring an action to compel the Liverpool corporation to give their premises a constant supply of water which had previously been withheld. From the report before us it appears that the club was supplied from a high-level tank and until nearly the end of last year water was only obtained at the club between six o'clock in the morning and six o'clock in the evening. At a previous period the water was supplied by gravitation from the reservoirs and the pressure was only sufficient to supply the first and second floors of the club during the day. The deficient water-supply caused considerable inconvenience, because the bar, lavatory, and baths had not a constant supply. In the year 1896 two cisterns had been placed in the upper storey for the storage of water. These cisterns were not supplied during the night. The members of the club had suffered from this state of things for a considerable time but the decision in the case which has just been referred to determined them to try to obtain a legal remedy for the neglect of the Liverpool authorities to carry out their statutory obligations. Complaints were made to the corporation and the town clerk promised that steps would be taken to give a sufficient supply of water and the corporation pumped water to the high-level tank during the night as well as during the day, so that a certain amount of water was supplied to the club cistern during the night. During the daytime, however, when water was taken in any quantity in the lower part of the town the amount of water obtainable at the club was insufficient for domestic use. In support of this statement the secretary, the manager, and the chairman of the club gave evidence and the presiding magistrate, after hearing witnesses for the defence, said that the bench were satisfied that the supply of water was insufficient. On behalf of the Liverpool corporation it was pleaded in the course of the trial that, in the first place, the conviction was not good because the water rent had not been paid at the date from which the fine was imposed. In the second place, it was pleaded that the Liverpool corporation could not with their present works and apparatus supply water at sufficient pressure and that they could not increase their works without Parliamentary authority. It was urged, moreover, that if the contentions of the club were correct the corporation would be compelled to erect new works from time to time to supply high buildings if such were erected. On the application of the counsel for the Liverpool corporation the magistrates agreed to state a case for the higher courts. The matter, therefore, which is of some importance, has not been finally settled, and we await the result with interest.

TRAUMATIC RUPTURE OF THE INTESTINES.

THE number of cases of traumatic rupture of the intestine unassociated with wound of the abdominal parietes which have been submitted to operation with a successful result is very small. The difficulties which surround the formation of a diagnosis are many and varied. As, however, the patients invariably die when the rupture is not sutured and the abdomen properly cleansed it is of the utmost importance that the profession should recognise the possibility of a rupture having resulted from an injury and take measures to obviate the fatal result which must otherwise follow. We hope to give our readers fuller details of three cases in a future number of THE LANCET, merely stating now their bare outlines. It is interesting to note that the three cases were all subjected to operation at one of our hospitals, St. Thomas's, where the first successful intestinal suture in London for similar injury was performed by Mr. John Croft. About two months ago Mr. Makins was called to see a man who had been run over a few hours before. At the operation an oblique tear of the ascending colon was found. This was sutured, the peritoneum was cleansed, and the man made a good recovery. The second case was that of a man, aged twenty-seven years, who had been run over when intoxicated and had been refused admission to another hospital. This patient was operated on by Mr. Battle twenty-one hours after the injury. A tear in the small intestine twelve inches from the ileo-cæcal valve was sutured and the peritoneum was cleansed, but with some difficulty. The patient's condition was very serious. We are pleased, however, to learn that there is a good prospect of recovery. The operation was performed on April 5th. Only last Sunday, April 24th, Mr. Pitts was called to see a man who had received a kick in the abdomen from a horse. He operated and sutured an opening which was found high up in the small intestine. The patient has progressed extremely well. There can be no doubt that early operation is indicated in these cases, for the sooner the opening in the bowel is closed the less

extensive will be the infection of the peritoneum and the less will be the risk of septic peritonitis which is so much to be dreaded.

THE HEALTH OF MR. GLADSTONE.

WE are sorry to learn on good authority that Mr. Gladstone is manifestly weaker, though this is not due so much to any obvious progress of disease as from a general failure of power. He retains, however, a fair amount of strength, while the appetite is satisfactory, and the pulse, though variable, is at times good. We are very glad to state that though the illustrious patient is not free from intermittent flashes of pain, these do not now appear to be of a very severe character.

IRISH OPPOSITION TO THE LONDON UNIVERSITY BILL.

OPPOSITION to the London University Bill is brewing from a somewhat unexpected quarter. The *Daily Nation* (Dublin) on Tuesday last devoted its first leading article to a passionate appeal to Irish representatives to unite in strenuously opposing the passage of the University of London Commission Bill "until and unless adequate measures are forthcoming that the Government will take steps to remedy the gross inequality of treatment between the two kingdoms." It is averred that the measure in question is to be pressed forward by the Government as soon as the Irish Local Government Bill has passed through Committee; and that if passed it "will give to England an additional university almost precisely similar in character to that for which Catholic Ireland has appealed in vain." Now we do not complain of Ireland's desire to have a Roman Catholic teaching university established in a country where so much of the higher education is carried on by Roman Catholics, but surely it is rather absurd to speak of the reconstitution of the University of London as a measure which runs parallel to the foundation of a Roman Catholic university for Ireland. We fear that our Irish friends are not well posted in the history of the movement to secure a teaching university for London, of which the present Bill is the outcome; and we trust that they will think twice before quoting this reform in the facilities for higher education in the metropolis as another "injustice to Ireland." Indeed, if the views expressed by the *Daily Nation* are accepted then the fact of the passage of this Bill should prove a powerful argument in support of their particular demand.

SIR WILLIAM BROADBENT is announced to take the chair at the annual meeting of the Medical Mission (Auxiliary to the Church Missionary Society), which will be held at Exeter Hall on Thursday next, May 5th, at 7.30 P.M. Among the speakers will be Mr. A. Neve, medical missionary in Kashmir; Dr. Herbert Lankester, physician to the Church Missionary Society; and the Rev. J. C. Hoare, M.A., missionary in China. There are a few reserved seats, tickets 1s. each, but other tickets are free on application to the secretary, Medical Committee, Church Missionary House, Salisbury-square, E.C.

THE annual dinner of the Indian Medical Service will take place at the Café Monico on Thursday, June 9th, at 7.45 P.M. Surgeon-General Sir Joseph Fayrer, Bart., K.C.S.I., F.R.S., M.D., will preside. It is particularly requested that officers intending to be present will intimate their intention at the earliest possible date to the honorary secretary, Mr. P. J. Freyer, 46, Harley-street, W.

SOME of the friends and colleagues of Dr. W. S. Playfair have arranged to give him a complimentary dinner on his resignation of the offices he held at King's College and King's College Hospital. The date is fixed for June 4th and Lord Lister will preside. Dr. John Phillips is acting as secretary.

THE British Institute of Preventive Medicine has now formally notified a change of address. After May 1st, 1898, communications should be made to Grosvenor-road, London, S.W., instead of to 101, Great Russell-street, London, W.C.

REPORT OF THE ROYAL COMMISSION ON TUBERCULOSIS.

I.—MILK.

FEW subjects have been more considered by Royal Commissions and other committees than that of bovine tuberculosis. In 1888 the subject had already attracted so much attention that it was added to the work of the Departmental Committee appointed to inquire into pleuro-pneumonia. The contagious nature of the disease was not nearly so clearly recognised at that time as it is to-day and although the recommendations of the committee were strong no decided action followed them, as there was not sufficient evidence to prove that such action would be acceptable to stock-owners. During the next year or two, owing to the stringency of some medical officers of health in condemning for the purpose of food animals which after slaughter showed traces of the disease, the butchers, on whom the loss from these seizures fell, agitated for the appointment of a Royal Commission to consider the question. This Royal Commission was appointed in 1890 to inquire into the effect of food derived from tuberculous animals on human health, and the report, delayed in consequence of the necessity of carrying out experiments to gain accurate information on the point, was presented in 1895. The conclusion of that report, shortly, was that an appreciable part of the tuberculosis which affects man is obtained through his food, chiefly from milk containing tuberculous matter. At the same time the Commissioners stated that "provided every part that is the seat of tuberculous matter be avoided and destroyed ..... a great deal of meat from animals affected with tuberculosis may be eaten without risk to the consumer." Very valuable as that report was it did not touch on the administrative procedures available for reducing the amount of tuberculous material in the food supplied by animals to man, and as that was the point with regard to which the butchers were most interested the matter was not allowed to rest. During the time that the Royal Commission had been sitting knowledge of the disease had been greatly extended. The stringent measures with regard to the seizure of tuberculous carcasses in countries such as Germany, France, and Belgium had been greatly relaxed, and through the discovery of the value of tuberculin as a means for diagnosing the disease in cattle it was thought that an important agent for eliminating the disease lay ready to hand. The time was therefore ripe for the reconsideration of the subject and in July, 1896, the present Commission which has just reported was appointed to inquire into the administrative procedures for controlling danger to man through the use as food of the meat and milk of tuberculous animals. All the seven members of the Commission sign the report, but a memorandum on the subject of compensation to owners of condemned carcasses is added by three of them, including the chairman, Sir Herbert Maxwell.

We think that the conclusions at which the Commissioners have arrived will commend themselves to the medical profession and the general public. The members have evidently availed themselves of the powers allowed to Royal Commissions to gain first hand information on the subject of their inquiry by visiting Belgium, Germany and Denmark, where the administrative measures have been worked out much more fully than has been the case in this country. In addition to the 55 witnesses whom they summoned before them, consisting principally of medical officers of health, sanitary inspectors, butchers, and dairy farmers, they visited

slaughter-houses, cow-sheds, and dairies in various parts of Great Britain and Ireland.

As was to be expected the Commissioners consider that the danger from tuberculous meat, seeing that the meat substance itself is so rarely the seat of the disease, is slight, while that from milk, for the reason that it is consumed chiefly in the raw state by infants who are peculiarly susceptible to tuberculosis of the bowels, is serious. We therefore propose to consider first the bearing of the report on the milk aspect of the question. The Commissioners are in entire agreement with the finding of the previous Royal Commission that the condition required for ensuring to the milk of tuberculous cows the ability to produce tuberculosis in the consumer is tuberculous disease of the udder. A cow with marked tuberculous disease of other organs does not, so long as the udder remains unaffected, cause the milk to be dangerous; but a tuberculous infiltration of the udder fortunately is not an early manifestation of the disease in the cow—on the contrary, it is usually secondary to disease in other organs and occurs late in the course of the disease. In the slaughter-houses of Copenhagen it has been found to occur in from 1 to 2 per cent. of tuberculous cows. Still, owing to the practice prevailing among cow-keepers of mixing the milk of all the cows, one animal with disease of the udder is a source of danger to the whole milk-supply, and that such a danger is not one to be neglected is demonstrated by the interesting investigation made on the subject by Dr. Hope, the medical officer of health of Liverpool. He found that of 144 samples of milk taken from dairymen within the city and of 24 arriving from rural districts at the railway stations, 8 samples, or 2·8 per cent., of the former and 7 samples, or no less than 29·1 per cent., of the latter produced tuberculosis after inoculation in guinea-pigs.

We regard, therefore, the recommendation "that notification of every disease in the udder shall be made compulsory under penalty on the owners of all cows" as the best and most wide-reaching of all the recommendations. Legislation hitherto has failed to touch tuberculosis in the cow, as this disease was not included among the contagious diseases of animals to which the Dairies, Cowsheds, and Milkshops Order applies, nor has it been found practicable to deal with it under the Infectious Disease (Prevention) Act, 1890. But in order to prevent the sale of milk from a cow presenting clinical symptoms of the disease, a condition in which an infection of the udder may be regarded as imminent, the Commissioners recommend the extension of notification also to cows thus affected, with power to the local authority to prohibit the sale of the milk as well in the one case as in the other and even to slaughter the animals.

The prevalence of tuberculosis among cows to a far greater extent than among bullocks and heifers is directly traceable to the ease with which the contagion may spread from one animal to another in badly ventilated cowsheds. The medical officer of health has in many cases offended the agricultural community by his insistence on the necessity of adequate cubic space in cowsheds and the Commission state it as their opinion that from 600 to 800 cubic feet for each adult beast should be a minimum in populous districts. Many will regret that they do not apply the same minimum to cowsheds in rural districts, where it is notorious that the housing accommodation is often bad in the extreme.

After reading this report the farmer will have no excuse for not setting his house in order and making an attempt to eliminate the disease. The description the Commissioners give of the success of the Danish experiments in subduing the disease by inoculating whole herds with tuberculin is most encouraging. They were given the opportunity, under the guidance of Professor Bang, whose name will be inseparably associated with the first scientific attempt to get rid of the disease, of visiting two out of the 5300 herds which have been dealt with by the Danish method. That method is, briefly, to replace a herd that may have been markedly affected by a healthy one in the course of a few years by separating the sound from the reacting animals, feeding the calves born from the first day of life on boiled milk, submitting the healthy animals once or twice a year to a fresh test, placing such as react on the other side of of a partition, and purchasing only animals which have stood the tuberculin test. Tuberculin gives trustworthy results, Professor Bang believes, in over 90 per cent. of the animals tested, but in the great majority of those which react the test reveals only latent tuberculosis. Hence it is not necessary to exclude the milk of reacting animals from human consumption unless visible signs of the disease are at the same time present, although, being tainted animals, it is advisable to sell them off gradually for the meat market. In the case of Denmark the supply of tuberculin and the services of a veterinary surgeon have been given gratuitously to the farmers by the State, and so impressed are the Commissioners with the success of the arrangement that they recommend that funds be placed at the disposal of the Board of Agriculture to carry out in this country, on the same lines as in Denmark, a similar comprehensive scheme for the elimination of the disease.

Fault will be found by some that there is no recommendation in the report that animals which react to the tuberculin test should be marked. In some parts of the country a certain amount of feeling has been aroused by the action of farmers who, after having discovered by means of the test which of their animals were affected, have at once drafted them off for sale, generally at a place some distance from their farm, without a declaration that the animals had reacted. The point raises a nice question in commercial morality, but the fact that there is no mention of the desirability of marking such animals in the Report must be taken, we suppose, to mean that the Commissioners are so impressed with the value of tuberculin that they do not wish to place any obstacles in the way of its general introduction. Later, when it is seen how far the agricultural community are prepared to take advantage of the test, some regulations with regard to the use of tuberculin will have to be framed.

In a second article we propose to discuss the report in regard to the recommendations of the Commissioners on the subject of tuberculous meat.

MEDICINE AND THE ALLIED SCIENCES AT THE PARIS EXHIBITION OF 1900.

MEDICINE and the allied sciences will occupy an important place at the forthcoming international exhibition to be held in Paris in 1900. By the courtesy of the secretary of the committee of organisation, M. Mazure, and of the Dean of the Faculty of Medicine, our Paris correspondent has been supplied with information which although dealing with what are at present merely projected arrangements yet possesses a great deal of interest. To begin with, a general survey of the arrangements made for foreign exhibitors shows that they will not, as heretofore, have special sections allotted to them—sections which, in fact, formed a number of small separate exhibitions, naturally enough of the most various sizes. This system certainly had the advantage of leaving the special commissioners for the section from each country a free hand in the organisation of their own exhibits and at the same time of giving visitors some idea of the geographical and statistical importance of the various productions and industries peculiar to each nation. But at the same time it was open to the objection of breaking up the exhibition into groups of the most varying size. At the exhibition of 1900 the foundation of a group will not be nationality but the nature of the object on exhibition. According to present arrangements there will be no special national sections but the various countries will exhibit side by side those objects which are illustrative of the same industry. Comparison therefore will be rendered far more easy and the visitor who has a special interest in any one subject will find all the elements necessary for a complete answer to his inquiries displayed before his eyes in a very compact and complete manner. On the other hand, it is possible that the new system will have the effect of giving to each section the appearance of a *salle de concours*, where the public will run the risk of receiving a superficial and inexact impression with regard to the importance of the same industry in the different countries represented; for it is evident that distance, cost of transport, &c., will play a considerable part in the extent of these installations, Australia, for example, on account of being so much further off, being less able than Belgium to have itself well represented in each group.

Having made these general observations we may proceed to examine the various divisions of the different sections of medicine and the allied sciences. These are, as a matter of

fact, very well shown upon the plan drawn up by the committee of organisation, but the plan exhibits various inconveniences which are inevitable in any classification, and those critics who find fault with the arrangements would probably have done the same on other grounds if the plan had been different. By far the larger part of the exhibition allotted to medicine is catalogued under two groups—namely, the third and the sixteenth. The third group is that including instruments and various things common to literature, science, and art. In this group Class 16 is given up entirely to medicine and surgery. The President of the committee is Dr. Paul Berger, Professor of Clinical Surgery at the Faculty of Medicine and surgeon to the Hôpital de la Pitié. This portion of the exhibition will contain material for practical medical and surgical work, as the following enumeration shows:—Appliances, apparatus, and instruments for anatomical, histological, and pathological work; anatomical specimens both normal and pathological; histological and bacteriological preparations; apparatus for sterilising instruments and dressings; instruments for the examination of medical cases both general and special; instruments and apparatus for the examination of surgical cases, general, local, and special; dressings; artificial limbs and similar appliances; orthopædic apparatus; instruments and the like for the surgical treatment of hernia; medical gymnastic apparatus; materials, instruments, and apparatus for special therapeutics; dental instruments; various forms of apparatus for the infirm, the sick and the insane; outfits and cases of instruments and drugs for military and naval surgeons; materials for the use of the wounded on the field of battle; apparatus for restoring the apparently drowned or asphyxiated; and instruments and apparatus used in veterinary surgery.

It must be noticed that the exhibits concerned with military medicine both by sea and land are also to be found under another class—namely, Class 121, Group XVIII., that devoted to hygiene and sanitation—and that veterinary instruments also will be found a second time in Class 35, Group VII. (Agriculture), also a great many instruments and the like will be found again in Class 98, Group XV., which is allotted to the caoutchouc and gutta-percha industry, and in Class 27, Group VII., which includes the various applications of electricity. In Group XVI., allotted to social economy, hygiene, and *assistance publique*, it will be found that the medical profession is almost entirely concerned with two of the subjects.

Class 111, namely Hygiene, will occupy a part of the enormous gallery of machinery, alongside that allotted to agriculture probably. The president of the Committee of Organisation is Professor Brouardel, dean of the Faculty of Medicine of Paris. Here are the provisional divisions according to the official programme. (1) Science of hygiene: historical exhibition of the progress of hygiene; the application of the discoveries of Pasteur to the prophylaxis of infectious diseases; laboratory work, both chemical and bacteriological, in its application to hygiene; researches on the transmissibility of infectious maladies; methods and apparatus for disinfection; methods for the collection and conveyance of drinking water with a view to preventing contamination. (2) The hygiene of the person and of the dwelling house; measures of precaution against transmissible maladies; immunity; "vaccination" as a preventive of small-pox and hydrophobia; application of the rules of hygiene in the choice of materials for building; warming, ventilating, lighting, &c.; water supply; apparatus for baths and hydro-therapeusis; sewage disposal. (3) Hygiene with regard to public buildings and associated dwellings (*établissements collectifs*): schools, factories, workshops, hospitals asylums, public halls, theatres, and the like. (4) Hygiene in rural communities: conditions indispensable for the health of rural habitations; municipal sanitary regulations; rural police (*police de la voirie*); storing, transport, and utilisation of various manures; the protection of waters intended for drinking. (5) Hygiene and sanitation of towns: street commissioners (*voirie*); cleansing the public streets and gutters and sweeping; building regulations (such as the number and height of the storeys, size and ventilation of inhabited rooms, and size of courts and alleys); emptying of cesspools; water-supply for a town, apparatus for filtering and sterilising; sewage disposal, disinfection of sewage, irrigation grounds; utilising of waste and offal; sanitary municipal arrangements; health office; methods of collective defence against infectious maladies; transport of those suffering from contagious diseases; isolation, disinfection of the belongings and the houses of the infected; inspection of substances used for food; inspection of abattoirs and private slaughter-houses; municipal laboratories; cemeteries, and apparatus for cremation. (6) Protection of frontiers against epidemic diseases: (*a*) by land—medical inspection at the frontier, infirmaries, and disinfection at frontier railway stations; (*b*) by sea—sanitation of seaports, sanitary organisation, former lazarets, sanitary inspection stations, medical staff, and disinfection on board ship. (7) Food products and objects in common use: control of food products, examination for adulterations, various processes for the preservation of foods; inspection of mineral waters both natural and artificial; objects in common use and the progress of hygiene with regard to such. (8) Mineral water stations and sanatoria: analysis of mineral waters, methods of collection and safeguarding the springs, various methods of medication by mineral waters and apparatus destined to apply them, such as bathing pools, apartments for inhalation, sprays, &c. (9) Sanatoria, thermal stations, general disposition of such places, aspect, covered-in promenades: thermal establishments, huts, baths, douches; preventive and antiseptic measures, especially in those places frequented by tuberculous patients; bottling and preservation of mineral waters. (10) Sanitary and legal statistics: death- and birth-rates; epidemic mortality; sanitary legislation.

In Class 112, that allotted to the *assistance publique* and organised under the presidency of Senator Theophile Roussel, which will be housed in the space allotted in 1889 to the section of the liberal arts, will be found many sections of interest to the medical profession. (2) Protection and help during infancy; general organisation for protection and help during infancy: protection and help for the infant before birth by extending the same to the mother, such as asylums, workrooms, maternity societies, private and public lying-in hospitals, convalescent homes; protection and help for the child after birth; *crèches*, institutions for children in early life, for foundlings, deserted children, orphans, and those morally abandoned; help for sick and weakly children, dispensaries, hospitals, infirmaries, and the like. (3) Help for adults: for those able to work, clubs, labour exchanges, bureaux, night shelters, mendicity societies; for the sick: help at home, gratuitous medical attendance and medicine, hospitals including regulations, organisation, medical and surgical service, special service for contagious diseases; for the aged: asylums and country farms, infirmaries. (4) Help for the insane: public and private asylums, infirmaries, *maisons de santé*; help by means of field colonies; special institutions for epileptic and feeble-minded children; educational methods. (8) Staffs of charitable establishments; training schools for nurses both male and female.

To these, the principal groups, must be added sundry other sections dealing with medical matters which will be found under other heads of classification. Thus, for instance, the teaching and material for it given by the Faculty of Medicine comes under Group I. (Education), Class 3 (Higher Education and Scientific Institutions). There, too, will be found the following sections which concern us: (1) Legislation, organisation, and general statistics of higher education; various institutions and establishments for the same; locality, plans and models, fittings, furniture, and other material for education; supply and renewal of the professorial staff; régime, schemes of study, methods, &c.; results. (2) The great scientific bodies; learned societies; work and publications; scientific missions.

With regard to the medical library and the medical press, their place is not yet definitely decided. There is a class—namely, Class 13, Group III.—where the books and journals will be exhibited. But M. Mazure, in answer to our correspondent's inquiries on this subject, seemed to think that these publications would be of too special a nature to be exhibited with the general press and would perhaps be found under Class 3 (Higher Education) or more probably in Class 111 (Hygiene).

Pharmacy takes up Class 86, Group IV. (Chemical Industries). A place is reserved there under the title of "Raw Pharmaceutical Material, Simple and Compound Drugs." Medicinal and pharmaceutical plants will be in Class 41 (Agricultural Products other than those intended for Food), Group VII. (Agriculture).

Finally, in Class 54 (Machinery, Implements, and Products of Crops) will be found plants, roots, barks, leaves, fruits obtained without cultivation, used by herbalists, druggists, dyers, and others.

In addition to the exhibition proper the science of medicine will be represented by a very large congress. As

in 1889 all the learned societies in France will organise a congress for the reception of their foreign *confrères*. A special building is in course of erection at present on the right bank of the Seine, close to the Alma Bridge, and in this building the congress meetings will be held. There will be a large hall which will serve not only for lectures and the like but also for international musical and dramatic entertainments. The organisation of the various meetings is in the hands of a special department which has already set to work. M. Gariel, the professor of Physic at the Faculty of Medicine, is the head of this department. There will be altogether from 200 to 230 different congresses, of which some thirty will have to do with medical science pure and simple. The most important will be, as has been the case at every exhibition, the congresses of the Therapeutical Society, of Forensic Medicine, of Surgery, of Urology (a new departure) and of Hydrology. All these congresses are divided into twelve sections and Section VI. is devoted to the medical sciences. Probably, too, they will be represented in certain other sections, such as Section IV. (Physical Science and its Applications), Section V. (Natural Sciences, Anatomy, Physiology, Anthropology), and Section X. (Social Science, Social Economy, Hygiene, *Assistance publique*, and the like).

Besides these, the International Congress of Medicine, will take place at Paris in 1900. To M. Lannelongue, M. Chauffard and others was intrusted at Moscow, when it was decided that the next Congress should be held at Paris, the task of organising it, and they have already begun to prepare. The question has arisen whether the various medical congresses of separate societies of which we have already spoken will be incorporated with the grand International Congress, of which they might form sections already organised and arranged, thanks to the initiative taken by the various presidents and bureaux. This plan would certainly simplify the organisation of the International Congress and, in addition, visitors who came to study one particular branch would find everything about it ranged under one and the same meeting.

Negotiations are still going on but unless some decision is soon arrived at the International Congress will be held and organised independently of the sectional congresses, although many of its sections will simply double the parts of the others. The reason of this is presumably that the organisers of the International Congress wish to nominate for themselves the presidents of sections and are not willing to accept those gentlemen who are already presidents of the various society congresses. The International Congress will probably be held at the beginning of August, 1900, and the smaller congresses during the month of July, so as to avoid the necessity of foreign medical men making two journeys.

The French Medical Press Association has decided to organise a committee for the reception of foreign medical men, so that they will have a place where they will be able to obtain all information concerning Paris, the Exhibition, and the Congress.

THE ROYAL COMMISSION ON THE METROPOLITAN WATER-SUPPLY.

THE nineteenth meeting of the Royal Commissioners was held in the Council Chamber of Westminster Town Hall on April 25th. With the exception of Sir George Barclay Bruce all the Commissioners were present during the whole of the sitting.

The examination of the City Remembrancer was concluded and Sir Arthur Arnold gave evidence on behalf of the London County Council. The evidence of the City Remembrancer had reference chiefly to the sinking fund which is invested by the Chamberlain of the City of London and with the exception of details concerning the investments little information was added to the evidence previously given. Sir Arthur Arnold was examined on a "private and confidential" printed statement which was put in on his behalf for the information of the Commissioners. This statement, it appeared in the course of the examination, was not written by the witness and he did not seem acquainted with the details which it contained, but he said it was corrected by him. Towards the end of the sitting the Chairman asked who composed the "little book," but Sir Arthur Arnold did not satisfy the Chairman's curiosity on this point.

The CITY REMEMBRANCER, in answer to the CHAIRMAN, said that the Water Companies' Sinking Fund was invested in the name of William James Richmond Cotton, Chamberlain of London. A table which he handed in gave the names of the companies in whose securities the money was invested, the date at which the dividends had been paid, the price at which the stock was purchased, the date of purchase in each case, the cost at which the stocks were bought, including stamps and brokerage and the "price per cent." at which the securities were bought. The companies in which the sinking fund is invested are the East London Waterworks Company, the Lambeth Waterworks Company, and the Southwark and Vauxhall Water Company. The first purchase of stock was made on April 13th, 1891, and the last on April 6th, 1898. The total amount of the money received and invested is £22,424 17*s.* and the total nominal amount of stock purchased is £12,015. The purchases of the stock are not made under seal of the Corporation but in the name of William James Richmond Cotton, Chamberlain of London. The question arose as to who would be responsible in case of the bankruptcy of the Chamberlain, and the counsel for the water companies suggested that the title "Chamberlain of London" was a description of the purchaser and said that a company would be obliged to transfer the stock on the signature of the holder and that, in fact, the description "Chamberlain of London," from a legal point of view, did not mean more than "esquire" as a description of the occupation of an individual holder of the stock.

The CITY REMEMBRANCER expressed the opinion that the official auditor of the water companies' accounts had not sufficient authority and he understood that he had experienced some difficulty in carrying out the work assigned to him. He said, however, in answer to the CHAIRMAN, that he had not received any written complaint from the auditor and the CHAIRMAN then stated that the Commissioners would wish to have an opportunity of examining the auditor himself.

With regard to the investment of the sinking fund in the water companies' stocks the witness pointed out that it was necessary that the Chamberlain should invest the money in the stocks of the companies from which the money for the sinking fund was received. The objection to investing the money in this way was that the purchaser who was obliged to buy a certain stock was, as it is called in the City, "making a market against himself." The original idea of the sinking fund was that it should be used for the purchase of stock and that the stock so purchased should be cancelled, but this arrangement had to be altered. On behalf of the water companies it had been urged that it would not be fair for the sinking fund provided by one company to be used for buying up the shares of another company and that the money ought to be used in the purchase of the stock of the company from which the money had been obtained, and this contention had received parliamentary sanction.

Mr. BAGGALLAY, Q.C., examined the witness on behalf of the water companies with regard to the purchase of their undertakings, and the CITY REMEMBRANCER said that if the purchase were made it should be done under a special tribunal. He did not think, however, that a purchase could be effected under any other terms than those of the Land Clauses Act and he was opposed to the purchase.

The London County Council was not represented by counsel, but in the course of the sitting Mr. CRIPPS, Parliamentary Agent for the London County Council, interrupted the proceedings more than once and was called to order by the Chairman, who said that he did not think his intervention was necessary.

Mr. BAGGALLAY, Q.C., asked the City Remembrancer some questions as to the old London Bridge Waterworks, but the CHAIRMAN thought this examination unnecessary.

Sir ARTHUR ARNOLD, in answer to the CHAIRMAN, said he had been an alderman of the London County Council and was formerly the chairman of that body. In the year 1895 he was appointed by the London County Council to see the chairmen of the different metropolitan water companies with regard to the purchase of their undertakings. As the result of the interviews he had with the chairmen he said that the impression he obtained and still retained was that there was no unwillingness on the part of some of the companies to sell their undertakings on fair terms. In answer to the CHAIRMAN the witness said that he was not authorised to

offer any terms of purchase and that he had no authority to negotiate with regard to price and no authority to agree as to any basis for the assessment of price. The interviews which he had with the chairmen of the water companies were, he considered, private and he would not violate the confidence reposed in him.

Mr. PEMBER, who represented four of the water companies, assured the Chairman on their behalf that the witness was quite at liberty, as far as they were concerned, to answer any questions which he might wish. Counsel on behalf of the remaining companies immediately gave the same permission, but the witness declined to take advantage of it.

The CHAIRMAN remarked that a negotiation in which the agent was not empowered as to what he should ask or what he should concede was a peculiar one. What was the negotiation about? Was anything said about price? If he did not condescend to consider the question of price or the terms on which arbitration should take place he could not understand why he was sent. The witness replied that he discussed various matters with the chairmen but that he was unwilling to report any part of their conversations.

The CHAIRMAN proceeded to question the witness with regard to the composition of the London County Council. Witness said that it consisted of all sorts and conditions of men and that it was of an almost ideal character. The Chairman said one of the witnesses who had given evidence before the Commissioners had said that the London County Council was conducted on party lines, that the elections were managed by party agents, and that the members of the Council had a party organisation with leaders and whips. The witness took a general exception to these allegations, but he did not deny the specific statements which had been made and which were put to him in detail by the Chairman.

With regard to the amount paid for wages the witness said that the London County Council had over 7500 employés and that many of the members were of the opinion that the Council should endeavour to get the character of being "a good employer of labour," by which he meant that the highest current rate of wages should be paid to all the people employed. Labour members were occasionally against an increase of wages.

The witness was asked whether he thought it would be necessary that any control should be exercised over the London County Council should that body become the water authority for London. The witness, in reply, said that he thought it would not be necessary, but that for his own part he would like it, "to make assurance doubly sure." He thought that the advantages which would accrue to the people in case of purchase were chiefly that they would be able to raise money more easily than the present water companies and that there would be "unity of management." He thought the arbitration for purchase should be "full, free, fair, and open." He objected to arbitration under the Land Clauses Act because of "technical rules" which, he said, came into force under them.

In answer to Mr. CRIPPS, Q.C., the witness said that he had had very little experience of the working of the Land Clauses Act and Mr. Cripps remarked that he himself had had a good deal of such experience and that the "technical rules" mentioned by the witness did not exist.

THE ROYAL ACADEMY, 1898.

THE one-hundred-and-thirtieth exhibition of the Royal Academy of Arts will be open on Monday next to the public, who will find on the walls of Burlington House a collection of pictures quite up to the usual standard, many of which they will feel that they have seen before, so faithfully have the artists reproduced, both in subject and treatment, the kind of work which is associated with their names. Mr. T. S. Cooper's various pictures of clean cattle in clean meadows, Mr. Marcus Stone's "A Welcome Footstep," Mr. Peter Graham's two canvases representing Scotch moors and shaggy cattle, Mr. B. W. Leader's "Where Peaceful Waters Glide," Mr. H. B. W. Davis's "Under the Greenwood Tree," and Mr. F. Goodall's Egyptian scenes are all exactly like previous pictures by these artists; and other less established favourites have this year elected to follow closely in the wake of their previous successes—facts which give to the walls of the Academy an extraordinary air of familiarity.

The chief features of the exhibition are Mr. Sargent's splendid portraits of Mr. Asher Wertheimer, Mrs. Wertheimer, and Lord Watson. They are vivid and life-like to a degree, and even the veteran M. Carolus Duran's portraits, two of which are hanging in the sixth gallery, must give place to them in their quality of uncompromising truth. But next to Mr. Sargent's portraits M. Carolus Duran's portrait of the Countess of Warwick is the best picture in the Academy.

Of the Academicians, the President's great picture "The Skirt Dance" is a gorgeous classical composition; Mr. Herkomer has a bad portrait of Mr. Herbert Spencer and a very large picture of the Crimean veterans cheering the Queen during the Jubilee procession; Mr. A. C. Gow has two pictures in his usual finished precise manner, a manner which makes the canvases around look blurred, hot and confused; Mr. G. D. Leslie has a picture of Arlington Row, Gloucestershire, which would lead us to believe that distance at Arlington does not alter the view, for the further the buildings recede from the eye the more distinct do they become; Mr. G. H. Boughton's "Road to Camelot" is a very pretty piece of fancy; Mr. Orchardson's "Trouble" is exactly like his well-known pictures in the Tate Gallery, and, like them, is admirably painted; and Sir William Richmond does not exhibit.

The best pictures in the exhibition outside the portraits are contributed by Mr. Frank Bramley, Mr. George Clausen, Mr. Stanhope Forbes, Mr. David Murray, and particularly Mr. H. H. La Thangue with an excellent picture entitled "A Sussex Cyder Press" and Mr. E. A. Abbey with his "King Lear" among the Associates; and among the outside contributors by Mr. T. C. Gotch, Mr. Chevallier Tayler and Mr. F. Brangwyn with his clever "Story." Mr. Albert Goodwin's "Under the Roof of the World" is a gorgeous piece of phantasy and Mr. Melton Fisher with his "In Realms of Fancy" thoroughly deserves his place on the line. On the whole we think that the drawing is above the average, but this may be accounted for by the fact that artists have set themselves fewer anatomical problems than usual owing to the number of nude studies being much less than in former years. Mr. H. Draper's "Lament for Icarus" is one instance of good anatomy, and as a triumph over anatomical difficulties Mr. W. Goscombe John's statue, "The Elf," deserves special praise from us. Among the water-colours two little landscapes by Mr. Leopold Rivers are well worth notice and in the sculpture room Mr. and Mrs. Nelson Dawson show some of their charming metal and enamel work.

The Academy this year contains but two medical portraits—Mr. Anderson Critchett, by Mr. Frederick Goodall, and Mr. T. Pickering Pick, by Mr. P. R. Morris. The former is a good picture, the latter strikes us as an inadequate portrait of a handsome man. The sitter, perhaps, may be responsible for the execrable necktie, but the artist has put a pudginess into Mr. Pick's face which has no real existence.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On Epidemic Measles in the Borough of Lancaster, by Dr. THEODORE THOMSON.[1]—This report relates to the occurrence, between September, 1896, and July, 1897, of a severe epidemic of measles in Lancaster, a borough with a population estimated at about 38,000. During this period no fewer than 1185 cases of measles became known to the sanitary authority, while in the same period 51 deaths from the disease were recorded. By the provisions of a local Act measles has since 1888 been compulsorily notifiable in Lancaster. The account given by Dr. Thomson of the administrative measures adopted in dealing with the outbreak thus becomes of particular interest, the more so as Dr. Thomson has during recent years made a special study of the means available to sanitary authorities in repression of this disease. The question first arises, how many of the cases occurring during the epidemic were notified by the medical practitioner, and how many, on the other hand, were notified solely by the householder? Local authorities

[1] London: Eyre and Spottiswoode, 54 st Harding-street, E.C. Edinburgh: John Menzies and Co. Dublin Hodges, Figgis, and Co. 1898. Price 3d.

very seldom demand from the latter fulfilment of his statutory duty of notifying, and this circumstance is often used to throw doubt upon the utility of making compulsory the notification of any disease, such as measles, in which frequently no medical aid whatever is sought. It is instructive, therefore, to find that in this Lancaster epidemic information of the occurrence of cases appears to have been fairly complete. No fewer than 461 cases were notified by parents only, as against 672 by medical attendants only and 49 both by parents and medical men. Householders had, in fact, notified as many as 43 per cent. of the total. Dr. Thomson gives a numerical analysis of measles notifications in Lancaster between 1889 and 1896. The figures, he points out, indicate that in some of these years householders have not always shown the same readiness in notifying measles. In years of conspicuous measles prevalence common report, as well as public notice from the sanitary authority, brings the necessity of notifying more frequently before them. In years when the prevalence is small, on the other hand, the householder becomes less mindful of his duty: thus only 9 out of a total of 46 cases in 1894 were heard of otherwise than through the medical attendants. But, as Dr. Thomson observes, the value of measles notification is bound to differ according to the circumstances under which notification has taken place. It is precisely in the inter-epidemic periods that its value is greater, for then timely and complete information may enable sporadic cases to be dealt with so as to materially lessen the chance of their giving rise to an epidemic. It would seem that towards the end of 1896 there were in Lancaster a number of scattered cases as to which, whether they were known to the sanitary authority or not, little effective action was taken. The later course of the epidemic tends to suggest that its rapid extension in January and February, 1897, was aided by schools. Closure in February of the public elementary schools seems to have produced a marked decrease in the amount of measles in the district. A recrudescence occurred a fortnight after April 22nd, when these schools were reopened. The majority of private schools and Sunday schools, on the other hand, were not closed, although the corporation are empowered by local Act to order temporary closure of such schools. Dr. Thomson notes that the chief incidence of the disease on children attending private schools occurred at a time when the epidemic was otherwise on the wane, and points out that neglect to deal with these schools and with Sunday schools must needs have diminished the value of closing the public elementary day schools. Other measures adopted with a view to preventing the spread of measles appear to have been open to objection at several points. Visits were paid to invaded houses by the sanitary inspector, but this officer, who was unaided in the performance of his duty, was unable to do more than make a single visit in each instance and hence the advice which he gave with regard to isolation of the sick was probably in many cases soon disregarded. The medical officer of health, who is also in general practice, was similarly without assistance during the epidemic. Notwithstanding the advantages which might have been gained in the early weeks of the outbreak by isolating cases in hospital the Lancaster Fever Hospital was not utilised for measles patients at any time during the epidemic. The school attendance officer and school teachers were systematically informed of measles occurring in families of which members attended school, but here again no information was afforded to teachers in Sunday-schools. No disinfection of rooms or articles was practised during the epidemic. In short, this report bears out the view which, thanks in the main to Dr. Thomson's previous work, has now come to be generally adopted. If a sanitary authority desires to have control of measles its administrative measures must be thorough at all points, both in epidemic and inter-epidemic periods. With Dr. Thomson's report to guide them it may be hoped that the corporation will in future make still better use of their exceptional facilities for the repression of epidemic measles.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 7202 births and 3905 deaths were registered during the week ending April 23rd. The annual rate of mortality in these towns, which had declined in the three preceding weeks from 21·5 to 19·5 per 1000, further fell last week to 18·1. In London the rate was 17·9 per 1000, while it averaged 18·3 in the thirty-two provincial towns. The lowest rates in these towns were 8·4 in Croydon, 10·9 in Portsmouth, 13·6 in Brighton, and 13·8 in Swansea; the highest rates were 20·5 in Bradford and in Leeds, 21·0 in Salford, 23·8 in Newcastle-upon-Tyne, and 24·6 in Sunderland. The 3905 deaths included 472 which were referred to the principal zymotic diseases, against 516 and 488 in the two preceding weeks; of these, 211 resulted from measles, 121 from whooping-cough, 48 from diphtheria, 32 from diarrhœa, 31 from "fever" (principally enteric), 28 from scarlet fever, and 1 from small-pox. No death from any of these diseases was recorded last week in Huddersfield; in the other towns they caused the lowest death-rates in Hull, Croydon, Portsmouth, and Brighton; and the highest rates in Newcastle-upon-Tyne, Salford, Leicester, and Sheffield. The greatest mortality from measles occurred in London, Bristol, Leicester, Leeds, Sheffield, and Halifax; and from whooping-cough in Salford, Oldham, Sheffield, and Gateshead. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 48 deaths from diphtheria included 31 in London, 3 in Cardiff, and 3 in Liverpool. One death from small-pox was registered in Sunderland, but not one in any other of the thirty-three large towns; and no small-pox patients were under treatment last week in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2377, 2421, and 2384 at the end of the three preceding weeks, had further declined to 2334 on Saturday last, the 23rd inst.; 241 new cases were admitted during the week, against 239, 234, and 217 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 372 and 305 in the two preceding weeks, further fell last week to 283, and were 96 below the corrected average. The causes of 39, or 1·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Nottingham, Manchester, Leeds, and in fourteen other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Norwich, Leicester, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the three preceding weeks from 24·2 to 22·5 per 1000, further fell to 22·0 during the week ending April 23rd, but exceeded by 3·9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·6 in Leith and 19·7 in Edinburgh to 26·5 in Dundee and 28·9 in Perth. The 663 deaths in these towns included 26 which were referred to measles, 25 to whooping-cough, 20 to diarrhœa, 6 to scarlet fever, 6 to diphtheria, and 5 to "fever" (principally enteric). In all, 88 deaths resulted from these principal zymotic diseases, against 105 and 79 in the two preceding weeks. These 88 deaths were equal to an annual rate of 2·9 per 1000, which was 0·7 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 23, 24, and 14 in the three preceding weeks, rose again to 26 last week, of which 22 occurred in Glasgow and 4 in Edinburgh. The deaths referred to whooping-cough, which had been 44 and 27 in the two preceding weeks, further declined to 25 last week, of which 16 were recorded in Glasgow and 3 in Aberdeen. The 6 fatal cases of scarlet fever showed a decline of 5 from the number in the preceding week, and included 3 in Glasgow. The deaths from diphtheria, which had been 9 and 4 in the two preceding weeks, rose again to 6 last week, of which 3 occurred in Glasgow and 2 in Aberdeen. Of the 5 fatal cases of "fever" 3 were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 157 and 164 in the two preceding weeks, declined to 152 last week, and were 13 below the number in the corresponding week of last year. The causes of 37, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·3 and 27·1 per 1000 in the two preceding weeks, declined again to

23·3 during the week ending April 23rd. During the past four weeks the death-rate in the city has averaged 27·5 per 1000, the rate during the same period being 19·6 in London and 20·8 in Edinburgh. The 156 deaths registered in Dublin during the week under notice showed a decline of 26 from the number in the preceding week, and included 13 which were referred to the principal zymotic diseases, against 9 and 10 in the two preceding weeks; of these, 5 resulted from scarlet fever, 3 from diarrhœa, 2 from whooping-cough, 2 from "fever," 1 from diphtheria, and not one either from small-pox or measles. These 13 deaths were equal to an annual rate of 1·9 per 1000, the zymotic death-rate during the same period being 2·8 in London and 1·8 in Edinburgh. The 5 fatal cases of scarlet fever considerably exceeded the number recorded in any recent week. The deaths referred to different forms of "fever," which had been 3 in each of the two preceding weeks, declined to 2 last week. The 2 fatal cases of whooping-cough were within one of the number in the preceding week, and the mortality from diphtheria also showed a decline. The 156 deaths in Dublin last week included 22 of infants under one year of age, and 41 of persons aged upwards of sixty years; the deaths of infants showed a slight increase, while those of elderly persons were considerably below the number recorded in the preceding week. One inquest case and 1 death from violence were registered; and 60, or more than a third, of the deaths occurred in public institutions. The causes of 6, or nearly 4 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

NAVAL MEDICAL SERVICE.

THE under-mentioned Deputy-Inspectors-General of Hospitals and Fleets have been promoted to the rank of Inspector-General of Hospitals and Fleets: Thomas Henry Knott and George Maclean. The under-mentioned Staff-Surgeons have been promoted to the rank of Fleet-Surgeon: Charles James and George Robert Deighton Charlton.

The following appointments are announced:—Surgeons: William Hackett to the *Cambridge* and Percival M. May to the *Victory*, additional.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel William B. Miller to be Brigade-Surgeon-Lieutenant-Colonel, vice L. A. Irving, retired. Surgeon-Lieutenant-Colonel George D. Bourke to be Brigade-Surgeon-Lieutenant-Colonel, vice A. A. Macrobin, retired.

Surgeon-Lieutenant Phillips proceeds to Windsor for duty with the Royal Horse Guards during the absence of Surgeon-Captain Rayner, who proceeds for service under the Foreign Office as Medical Officer to the Commission for Delimitation of the Anglo-Portuguese Frontier in South-East Africa. Surgeon-Major Carleton is transferred to Dublin for duty. The following officers have embarked on board the steamer *Niger* for Sierra Leone: Surgeon-Major Sutton and Surgeon-Captain Cockerill. Surgeon-Lieutenant-Colonel Fenn, C.I.E., proceeds to Dover for duty.

INDIA AND THE INDIAN MEDICAL SERVICES.

The Queen has approved of the retirement from the service of the under-mentioned officers: Brigade-Surgeon-Lieutenant-Colonel Sir Alfred Swaine Lethbridge, M.D. Aberd., K.C.S.I., Bengal Establishment (dated April 1st, 1898), and Surgeon-Lieutenant-Colonel Dhanjisha Navroji Parakh, Bombay Establishment (dated March 14th, 1898).

THE GREY OIL TREATMENT OF SYPHILIS.

Dr. Touren of the French navy has an interesting article in the *Archives de Médecine Navale* for April, 1898, on the treatment of syphilis by intra-muscular injections. At the Moscow Congress Dr. Gaucher of Paris enunciated three propositions: (1) mercurial injections in the treatment of syphilis should be the exception and not the rule; (2) when injections are employed the soluble salts of mercury are preferable to the insoluble; and (3) if an insoluble salt has to be used the "grey oil" is the least objectionable. After five months' experience in charge of the Saint-Mandrier venereal wards Dr. Touren is in a position to disagree with the first two propositions, but with the third he is in accord. In civil life, he says, the administration of mercury by the mouth may be best, but in a military or naval hospital this is certainly not the case. In the first place there are not only some patients who keep their sores open or create fresh ones wilfully but also others, more numerous still, who make away with their medicine. Secondly, it is universally acknowledged that in warm climates the digestive tract is peculiarly liable to derangement and should therefore be treated with circumspection. Intra-muscular injections enable the physician to administer mercury safely, expeditiously, and without any danger of digestive complications, while at the same time they ensure the ingestion of the drug as prescribed. There is therefore no valid objection to the universal employment of this method of treatment. In support of his second proposition Dr. Gaucher asserted that the administration of insoluble salts was a pharmacological heresy: *corpora non agunt nisi soluta*; but Dr. Touren found that although the symptoms quickly disappeared when a solution of mercury perchloride was injected they invariably returned with equal rapidity. In his opinion a clinical heresy was a far worse evil than a pharmacological heresy, so he preferred to adhere to the drug which gave him the best results. In Dr. Touren's hands the "grey oil" answered all requirements. The injection was painless, the patient could walk about immediately afterwards, salivation rarely showed itself and quickly yielded to an application or two of iodine, diarrhœa only occurred once, and, lastly, the mercury was absorbed with regularity and very slowly, the latter fact possibly accounting for the permanency of the cure. The formula adopted was as follows: purified mercury, 20 grammes; lanoline, 5 grammes; and vaseline, 35 grammes. The third of a Pravaz syringeful was injected at intervals of fifteen or twenty days and as a rule three or four injections sufficed to ensure the disappearance of all transmissible symptoms. When first he took charge of the wards Dr. Touren used the yellow oxide of mercury in a few cases, but the resulting pain was so severe and the absorption of the drug so irregular that he promptly gave it up. He did not venture to employ calomel because Balzer says it causes great agony when injected.

SIR EDWIN COLLEN'S VINDICATION OF THE MEDICAL SERVICES IN THE LATE INDIAN FRONTIER WAR.

IN the debate at Calcutta on the Indian Budget on March 28th last Sir Edwin Collen, the Military Member of Council, in the course of his speech on the military expenditure and the conduct of the late frontier war, alluded, among other matters, to the charges which had been made against the medical department. Sir Edwin Collen said that anyone who is a student of military history knows perfectly well that no campaign is ever conducted without an immense number of criticisms, both reasonable and unreasonable; and perhaps it is peculiarly a vice of the present day that credence is given to every kind of story which is, or appears to be, injurious to those who have the management of affairs. "Now, I suppose there is no department which has done more admirable work in the late campaign than the medical department, not only in the campaign itself but also in the treatment of the sick and wounded in the great hospitals that were formed. A large general hospital was opened at a station in the North of India. A newspaper at home published a report affirming that all the arrangements were as bad as they could be, that there was an insufficient staff, that the patients slept on the ground, and that the equipment was defective; that, for example, there were several serious cases of abscess of the liver and only three feeding cups. Now what are the facts? There was an ample staff: 16 medical officers and 18 assistant surgeons, and some nursing sisters; no patients ever slept on the ground; there were excellent barracks as well as tents; there was an ample supply of every kind of hospital equipment. There was not a single case of abscess of the liver, and there were forty feeding cups instead of three; while there was not a single death during the whole of the time the hospital was open. I merely make this statement to show how absolutely ill-founded many of the reports are."

SURGEON-LIEUTENANT-COLONEL LAWRIE ON PLAGUE IN THE NIZAM'S DOMINIONS.

Surgeon-Lieutenant-Colonel Lawrie has, according to the *Times of India*, issued a report on the plague and inoculation. His conclusions, based on personal researches, are that the infection is excessively and in a most complex

manner widespread, and that the area round Ganjoti and Umerghi constitutes by far the most important focus of infection in the Nizam's dominions. 550 deaths from plague have been reported since the epidemic first appeared. The plague is, he thinks, just the kind of disease in which poison might be looked for in discharges or exudations from buboes, either on the surface or the interior of the body. The suppurating buboes directly infect clothes, beds, bedding, and floors of houses. The bacillus of plague indicates the presence of the virus or infection of the disease. He found the plague bacillus in dust and scrapings from floors. In more than fifty per cent. of houses which have been regarded as uninfected rats inoculated with the dust from the floors immediately developed symptoms of plague and died. In milk inoculated with dust containing the plague bacillus a growth and multiplication took place. From one to two bacilli a field could be counted after one day's inoculation. The plague virus, in his opinion, does not spread through air or even through water unless it is excessively filthy, but most probably is putrid animal poison which falls to the ground and is taken into the human system mainly by inoculation.

SIR WILLIAM LOCKHART.

Before leaving India Sir William Lockhart, who has since arrived in England, issued a farewell order to the Tirah field force, in which he very truly and tersely stated that "never on any frontier expedition have the difficulties been more formidable, the punishment of the tribes more exemplary, or the submission more complete." As our readers are aware the border tribes, who are an eminently fighting, predatory race—Ishmaelites, their hand against every man—have borne no hatred or vindictive spirit, but having accepted their defeat and made their submission they were only too ready to become friends and even anxious to enter the military service of their late enemy. The tribes evidently admired the manly decision and straightforwardness of Sir William Lockhart, and he and Colonel Warburton, who was recalled from retirement to conduct the political negotiations in the Khyber, are to be warmly congratulated on the successful issue of a most difficult and laborious undertaking. Notwithstanding all that has been said we question whether any troops in the world could have done better on such an expedition, and certainly no Government could have been better served than was the Indian Government by the European and native armies and by the medical officers who accompanied them throughout the whole of the military operations.

THE LATE THUNDERSTORM AT DARJEELING.

In the terrific storm which occurred at Darjeeling on March 29th last the house of Surgeon-Major Moore at Jalapahar was struck by lightning and the occupants were for a time rendered unconscious and some of them seriously injured. Surgeon-Major Moore had a burn near one of his eyes and Mrs. Moore was partially paralysed for a time. Both are to be congratulated on their escape from more serious consequences. It fared worse, however, with a chuprassie who was rendered unconscious for some time and it is feared that the sight of one eye is lost. The dogs present in the house at the time were also struck and rendered insensible. The house itself has apparently received no damage.

CONTAGIOUS DISEASES IN THE STRAITS.

A letter has been received by the Straits Settlements Association from the Colonial Office, stating that Mr. Chamberlain is not prepared to sanction the re-enactment of the Contagious Diseases Ordinances in that colony, but he is conferring with the governor as to whether other measures can be taken to check the spread of venereal diseases.

ROYAL INSTITUTION. — On Friday evening, April 22nd, Mr. W. H. M. Christie, the Astronomer Royal, who made a journey to India for the purpose of observing the eclipse of the sun last January, gave a sketch of the work accomplished by Professor Turner and himself. It was originally intended that the Astronomer Royal's party should be stationed at Karad, a place near the sea-coast south of Bombay and Poona, but owing to the prevalence of plague the Indian Government transferred the party to Sahdol, a place lying far to the eastward, where the duration of totality was only 1 min. 45 sec. The lecture was copiously illustrated by views shown on the screen, the most remarkable of them being photographs of the solar corona as seen round the disc of the moon at totality.

Correspondence.

"Audi alteram partem."

ANTHRAX OR MALIGNANT PUSTULE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Jan. 1st, 1898, I was pleased to observe the report of two interesting cases of the above disease which occurred at St. Thomas's Hospital, under the care of Mr. H. Betham Robinson. What makes the matter more interesting is the fact that the disease is by no means an uncommon one in this colony. At times it is not only very prevalent, but very fatal, especially to those who contract the disease during the summer months of the year, when the thermometer ranges from 80° to 100° F. in the shade. I can readily confirm Mr. Robinson's opinion that early excision, in summer especially, is the only *sine quâ non* to a speedy cure and successful recovery. During my lengthy experience in the colony my services have been frequently called in to attend such cases, arising chiefly from inoculation from handling sheepskins and wool and hides of stock which have died of this malignant disease. The disease, too, in summer especially, is frequently produced by flies conveying the virulent virus from dead animals by inoculation through some pimple, cut, or abrasion of the skin. The face and neck, however, are the parts most commonly affected; next the hands and forearms. I have attended several cases occurring in the excessive heat of summer in which the patients have died within 12 or 14 hours after having contracted the poison or from the time they were first inoculated. The disease is characterised by symptoms of acute blood poisoning, usually in summer ending in early death. The poison may arise through the pulmonary or alimentary mucous membrane, but it is generally absorbed by inoculation through an abrasion, pimple, scratch, or cut of the skin through the handling of sheepskins, wool, or hides of dead animals. Animals which die from the disease should be buried or burnt and no person should be allowed to skin or make use of the wool or hides of the dead animal. In cases attacking the face and neck remedies seem to have little or no effect in arresting the progress of the disease, which spreads like wildfire. This discolouration and disfigurement from acute œdema increases most rapidly. It is undoubtedly in early stages when excision of the parts affected affords the best chance of a successful recovery. Not so, however, during the cool months of winter, for as a rule I have found topical applications, especially the ordinary "black wash," a most admirable and effectual remedy in such cases, assisted, of course, by tonics, especially quinine and a liberal diet. The disease first shows itself in the shape of a black pimple or dark-purple-looking slough or sore on the face, neck, or arm, varying from a simple pimple to the size of a shilling, covered with a darkish-coloured slough, accompanied by slight fever, lassitude, sickness, headache, and a dead, benumbed feeling at the sore. The dark-looking purple swelling or slough is a typical indication of the appearance of an anthrax pustule. The base of the pimple or pustule is somewhat swollen, red or purple, diffused, hard, and indurated. Before applying the "black wash" I generally freely scarify the sore and subcutaneous tissue, and within a week or ten days the symptoms abate with a complete disappearance of the disease. Such has been my experience in the treatment of a large number of cases which have occurred to my knowledge in this colony extending over thirty years. Those on the face and neck in summer are by far the most virulent and fatal and less evidently under the control of remedial agents unless seen and recognised at a very early stage and before the disease has made any progress. In one case, that of a man, aged forty years, who had been inoculated on the hand and arm from skinning sheep which had died from the disease, death took place within twenty hours. The patient came to me when the swelling had reached the shoulder. I suggested amputation but he declined, and within a few hours after he died from slight delirium and cardiac failure. He was a hawker or dealer in sheepskin but a most industrious, respected colonist. The second case was that of a woman, aged forty-two years, the wife of a shepherd; she had been inoculated on a scratch or pimple on the right cheek through

skinning a dead sheep. She died within twelve hours from the period of incubation in the middle of summer. The third patient was a man, aged fifty years, a herdsman, who had received inoculation on the neck under the lobe of the ear through handling a dead bullock—turning the carcass over in order to examine the brand. The matter at first was treated with contempt by the patient, but it proved fatal within fourteen hours from the time of inoculation during the excessive heat of summer. These were the only three cases which proved fatal; all the others made a successful recovery under tonic treatment, a liberal diet, black wash application, and free scarification of the sore. In the three deaths which occurred, from inoculation on the face and neck especially, the swelling and discolouration were something enormous, so much so that after death it was impossible to recognise the features, which more resembled a large block of charcoal than those of a human being. It is just as well that the history of these cases should appear side by side in your valuable journal with those which came under the observation of Mr. Robinson at St. Thomas's Hospital, if for no other reason than as a warning that the earlier the treatment the greater the probability of a satisfactory and successful recovery in such serious and most malignant cases.

I am, Sirs, yours faithfully,
ANDREW ROSS, M.D., M.P.

Molong, New South Wales, March 1st, 1898.

"COLLAPSE FOLLOWING LAPAROTOMY."

To the Editors of THE LANCET.

SIRS,—Would you kindly permit me to correct a misprint in my letter published in THE LANCET on April 23rd? I wrote that I injected "℥ ii. brandy" into the vein, not "3 oz." as printed.

I am, Sirs, yours faithfully,
CHARLES BOLTON, B.Sc., M.D. B.S. Lond.,
Senior Resident Medical Officer.

Evelina Hospital for Sick Children, Southwark Bridge-road, S.E., April 23rd, 1898.

*** We regret the error.—ED. L.

AN OBSERVATION REGARDING REVACCINATION.

To the Editors of THE LANCET.

SIRS,—Having read with interest the annotation entitled "The Need for Revaccination" in your last issue I should like to publish the following observation regarding revaccination. During the epidemic of small-pox at Gloucester, being called upon to revaccinate 60 young women the inmates of an "Anglican Home" at Malvern, I revaccinated 30 on the scars left by previous vaccination and the remainder on the normal skin, and found that the cases revaccinated on the old scars took more perfectly than those done on the normal skin. I also observed that in some of the latter cases, in addition to the reaction arising at the seat of the new abrasions, there was in several cases a sympathetic inflammatory action in one or more of the old scars. Calf lymph was used and there was not a failure in the 60 cases.

I am, Sirs, yours faithfully,
J. HOGGAN EWART, M.D. Edin.

Folkestone, April 25th, 1898.

"WHY CORONERS' INQUESTS ARE HELD."

To the Editors of THE LANCET.

SIRS,—Your annotation on "Why Coroners' Inquests are Held" leads me to call attention to the fact that the Registrar-General in his suggestions as to the filling up of certificates of the finding of the jury which are sent to the Registrar lays down the following principle: "The purposes to which inquests are intended to be subservient are partly legal, partly scientific and medical, and verdicts should therefore be such as to answer these several requirements." The question which arises is whether gentlemen who are Her Majesty's coroners are justified in neglecting the instructions of one of Her Majesty's departments of State. It appears to me that they are not.

I am, Sirs, yours faithfully,
Hatfield, April 23rd, 1898. LOVELL DRAGE.

"AN UNKNOWN LARVAL PARASITE."

To the Editors of THE LANCET.

SIRS,—The following extract from the Medical Appendix by Dr. K. Ker Cross in Sir Harry Johnston's book on British Central Africa may interest your recent correspondents:—"*Ifwinjire*, not mentioned in any book; it is from the word *injira*, to enter. It is due to maggots in the tissues; native children suffer greatly; I have seen the whole side of a child riddled with holes. These maggots are common in dogs and antelopes." I am, Sirs, yours faithfully,
F. HYDE MABERLY, M.D. Dub.

Hardley-crescent, Earl's-court, S.W., April 24th, 1898.

THE ROYAL MASONIC BENEVOLENT INSTITUTION.

To the Editors of THE LANCET.

SIRS,—On looking through the list of candidates of the Royal Masonic Benevolent Institution for Widows of Freemasons I find that there are four belonging to our profession. I would throw out a suggestion to your readers who are Freemasons that in the future all medical votes should be given to candidates who are connected with the profession, thus ensuring their election and saving the wasting of votes by giving them away indiscriminately.

I am, Sirs, yours faithfully,
Woking, April 23rd, 1898. T. CAWLEY EAGER.

"NEW DRUGS AND PREPARATIONS."

To the Editors of THE LANCET.

SIRS,—May I be allowed to supplement Dr. Hooper's letter in THE LANCET of April 16th? While recognising that a chemist has no right to dictate to medical men what preparations they should use he must necessarily take a deep interest in making the knowledge of drugs as scientific and exact as possible and must therefore look with regret on the growing tendency to prescribe preparations of a more or less secret character. But if it really is necessary for the benefit of the public that such remedies should be prescribed it is surely not too much to ask that the maker's name and address should invariably be given. For example, Jones's liq. ergotæ or Robinson's syrupus sennæ may be well known in some provincial town, but it does not follow that their fame has reached the metropolis; or, again, elixir cascaræ "A. & H." may be clearly understood by every London chemist to refer to Allen and Hanburys' preparation, but it is quite probable that many a chemist in, say, Dublin or Glasgow might be considerably puzzled by such a prescription. As a matter of fact I have frequently, after sending for some such article to every likely wholesale house and well-known firm, found it necessary to write the prescriber for information as to maker's name and address; meanwhile, the patient has been kept waiting quite unnecessarily for two or three days and unjustly blames the unfortunate chemist, who is not only out of pocket by the transaction, but is blamed undeservedly for not keeping a better stock of drugs.

I am, Sirs, yours faithfully,
Denmark-hill, S.E., April 19th, 1898. T. H. POWELL.

THE USE OF GLYCERINATED CALF LYMPH.

To the Editors of THE LANCET.

SIRS,—I thought that a quarter of a century ago the controlling power of a concurrent vaccination had been established beyond cavil. A late experience confirmed my acceptance of that teaching. I had to attend a little girl suffering from confluent small-pox and learned from her mother that both this and her other child, aged ten months, had been vaccinated unsuccessfully in early infancy—twice and once respectively. The family attendant had not insisted on more, for the mother had previously had small-pox and he too readily concluded that the children had inherited immunity. I vaccinated the infant, expressing my fear that it might already have caught the infection. This vaccination proved successful and the vesicles ran a perfectly normal course, though accompanied by a copious and exactly

synchronous eruption presenting all the characters of modified small-pox. The elder child died, but the infant recovered without a bad symptom. Mr. Collinson's letter in THE LANCET of April 9th impressed me deeply and painfully, but on reflection his cases seem to me to bear another interpretation and one of serious importance at the present juncture.

When the Stockwell Fever Hospital was first opened during the epidemic of 1870–71 for the reception of small-pox patients I acted as assistant medical officer for six months. Many hundreds were admitted during that period, but the only cases that showed evidence of recent vaccination were a series of four or five which all presented excellent cicatrices and had all been vaccinated by the same practitioner with lymph taken from revaccinations. They were the subject of a short paper in THE LANCET by the medical superintendent, the late Dr. J. B. Barbour, who took occasion to point out the worthlessness of this lymph, though the visible results of its inoculation counterfeited the genuine article. Mr. Collinson's cases seem on a par with the above and read in this light would constitute a grave indictment of the glycerinated calf lymph. A careful perusal of his startling list convinces me that all these vaccinations and revaccinations were impotent though "successful," and, indeed, his last quoted case, which he regards as anomalous, may, I think, be taken as the key to the series.

I am, Sirs, yours faithfully,

April 20th, 1898. WILLIAM MCLAURIN.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND AND THE REFORM OF THE ARMY MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—I am directed to inform you that the enclosed letter has been sent by the President of the Royal College of Surgeons in Ireland to the Secretary of State for War.

I am, Sirs, yours faithfully,

ROBERT H. WOODS, F.R.C.S. Irel.,
Secretary of Council, Royal College of Surgeons in Ireland.

Dublin, April 26th, 1898.

[ENCLOSURE.]

Royal College of Surgeons in Ireland, Dublin, April 19th, 1898.

MY LORD MARQUIS,—In reference to the Army Medical Department and the reforms in it which are about to be carried out a rumour is current that it is intended to give no higher rank and title than that of colonel. I am unable, of course, to say what justification there may be for such a report, but as President of the Royal College of Surgeons in Ireland it is my duty to state that such a decision would create much disappointment. My College has loyally acceded to your lordship's request that I should nominate two civil surgeons to do duty in the present emergency. It was led to this by the sympathy which your lordship has expressed and by your manifest desire to remove the causes of discontent. But I am bound to say that I fear the dead-lock will continue if the ordinary accepted titles are not conferred upon the higher ranks of the service. It is almost unnecessary to repeat that the medical officers have never thought of commanding in the field, and that any suggestion of that sort is quite groundless. I beg your lordship to believe that in thus addressing you I only wish to help in speedily removing the difficulties which exist and which prevent the filling of vacancies in the Army Medical Department.

I have the honour to be, your Lordship's obedient servant.

W. THOMSON, President R.C.S. Irel.

To the Right Hon. the Marquis of Lansdowne, K.G.,
Secretary of State for War.

THE QUEEN REGENT OF SPAIN.

To the Editors of THE LANCET.

SIRS,—In the full and excellent account of the Ninth International Congress of Hygiene and Demography, published in THE LANCET of April 23rd, the paragraph relating to the reception of the members of the Congress at the Royal Palace at Madrid is of special interest just now. May I venture, therefore, to supplement your correspondent's notes by stating that the Queen Regent, whose wonderful courage and powers of head and heart are exciting the admiration of everyone, spoke most sympathetically and kindly of our sick and wounded soldiers and of the interest she took in the Queen's visit to them at Netley? Her Majesty also spoke of the work done by the nursing sisters in connexion with the plague in India and of the distress she felt in reading of the casualties amongst them. Indeed, it would be impossible to convey in words the infinite sympathy and tenderness with which she referred to our troubles in India and to everything connected with our sick and wounded invalids. I am, Sirs, yours faithfully,

W. G. MACPHERSON,
Surgeon-Major, A.M.S.

April 25th, 1898.

THE DIPLOMA OF THE APOTHECARIES' SOCIETY.

To the Editors of THE LANCET.

SIRS,—With your permission I should like to make a few remarks respecting the late prosecution of a L.S.A. Lond. by the General Medical Council for describing himself as a physician and surgeon. I presume that the proceedings were taken under Sec. 40 of the Medical Act, 1858, for *wilfully and falsely pretending to be recognised by law as a physician and surgeon.* In 1888 the following letter was published in the leading medical journals:—

Society of Apothecaries, London,
Blackfriars, E.C., Sept. 27th, 1888.

MY DEAR SIR,—The title of Surgeon has long been in use, implying medical practitioner, but the L.S.A. is a licentiate in surgery as well as in medicine. It cannot be said that he is not a surgeon. It seems to me he may call himself what he likes—physician if he pleases.

Yours faithfully,

F. P. Moles, Esq. T. PEREGRINE, M.D., Secretary.

After such a statement, publicly made and never challenged, I cannot see that a L.S.A. who describes himself as a physician and surgeon can be said to *wilfully and falsely* misdescribe himself. I have in perfect good faith described myself as a surgeon for several years and I contend that we are recognised by law as such. Sec. 2 of the Medical Practitioners Act, 1876, says: "All legally qualified medical practitioners, with qualifications in medicine and surgery registered under 'the Medical Act,' shall be capable of being elected surgeons to county infirmaries or hospitals in Ireland."

The regulations for the admission of surgeons to the Army say with respect to the candidate: "He must possess two diplomas or licences, recognised by the General Medical Council—one to practise Medicine, and the other Surgery, and must be registered under the Medical Act in force in the United Kingdom at the time of his appointment. A candidate, however, who holds a single diploma from the Society of Apothecaries, obtained under the conditions of the Act of 1886, will be deemed to possess the double qualification required."

If these instances are not recognitions by law as surgeons, I should much like to know what constitutes legal recognition. It would be interesting to learn why the General Medical Council selected a practitioner in an obscure village for prosecution before a bench of magistrates none of whom have probably any special legal knowledge. If the Council in its newly awakened zeal is so anxious to prosecute the men who supply it with its funds, why does it not ride a tilt with some well-known and experienced practitioner? Dr. Major Greenwood, honorary secretary of the Brussels Medical Graduates' Association, barrister-at-law, has thrown down the gauntlet.[1] It must be confessed that the effect of these prosecutions on the public is anything but reassuring, leading them to believe that the L.S.A. is a sort of bogus diploma and its holder a false pretender and a cheat, who is to be hunted down by the General Medical Council, dragged into a police-court and fined, when he attempts to convey to the public a knowledge of the fact that he is a practitioner in medicine and surgery. Meanwhile any ignorant quack without a vestige of medical education may practise with impunity and the Council folds its hands and averts its eyes. I am, Sirs, yours faithfully,

April 18th, 1898. L.S.A. LOND., 1889.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Marked Decline of Mortality from Plague in Bombay.—Dissolution of the Plague Committee.—The Discoverer of Plague in Bombay.—Incidents in Plague Work.

THE past fortnight has seen a remarkably rapid decline in the death-rate for Bombay. Whereas it had reached 135 per 1000 it is now 95 per 1000. This decline is coincident with, but not necessarily dependent upon, the change of policy with regard to plague measures. There is now an almost entire absence of repressive measures, so that for all practical purposes the epidemic is taking its own course. This course, however, is an apparently natural one and does not appear to have been determined or even modified by

[1] Vide Brit. Med. Jour., April 9th, 1898, p. 990.

human agency. It has its parallel in last year's outbreak and it is also represented in both the primary outbreak and the recrudescence of the disease which have occurred in Poona. We may say that the epidemic will die a natural death, but we cannot so positively assert that the disease will suffer extinction.

The Bombay Plague Committee will be dissolved at the end of the month (April) and measures for dealing with the epidemic will be placed under a new organisation. Since the active work of the committee ceased and the native communities have been left to deal with the plague cases occurring in their several districts it is interesting to note that exactly the same proportion of unaccounted-for deaths occur now as formerly. About one-third of the excess mortality still continues to consist of unnotified plague cases. Even now 50 plague cases a day are unreported. It was imagined that under native management cases would not be secreted and that information of a larger proportion of cases would be forthcoming. The result has shown that the native population will not give information about their sick any more freely to their own leaders than they did in the days of military and other search parties.

When the history of the plague in Bombay comes to be written the name of Dr. Viegas must be duly acknowledged as its discoverer. This was a distinct omission in Mr. Birdwood's otherwise valuable lecture. Notwithstanding considerable opposition he forced the attention of the authorities to the calamity threatening Bombay, and by freely offering his cases for the criticism of his friends and opponents he was thus the means by which plague was officially recognised before the increased mortality drew general attention to the gravity of the situation. Sufficient credit has not been given to him for his professional acumen in discovering plague among his patients or for the energy with which he brought the danger home to the municipal authorities.

In view of the influx of people to Bombay with the present more hopeful view of the pestilence and to avoid overcrowding or the occupation of infected houses or of houses unfit for human habitation camp accommodation for about 17,000 people has been made available.

Plague has broken out at Kurrachee, but the cases at present are few in number and strenuous efforts are being made to prevent its spread.

The active measures adopted in other places than Bombay have led to disturbance and the lives of medical men and other officials have been placed in great danger. Surgeon-Captain Elphick was saved by his helmet from what would probably have been a fatal blow aimed at him during a disturbance at Jwalapur consequent on measures taken for removing a patient to hospital. Even in Bombay stone-throwing still continues to be practised occasionally at Europeans when moving about alone.

With the decline of the epidemic the type of the disease seems to be modified. The rate of mortality is lessening. Many comparatively mild cases are reported and amongst others two or three of the nurses engaged at the plague hospitals. A day's fever, with enlargement of one or more of the lymphatic glands, followed by debility for a week or longer, are the chief symptoms. Amongst the inoculated several instances of this modified form of the disease have been reported.

April 8th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Annual Congress of the Sanitary Institute.

As already stated in THE LANCET, the annual Congress of the Sanitary Institute is to be held in Birmingham next September. Already a local committee has been formed to make the necessary arrangements to receive the members in a manner worthy of this large centre. The Lord Mayor—Councillor Beale—has been appointed chairman, the executive committee and sub-committees have been formed, and a number of guarantors have given pledges sufficient to cover the expenses in case of need. Alderman Cook—the chairman of the Health Committee of the Town Council—is vice-chairman and the Lady Mayoress, who takes a great interest in the proceedings, has been appointed president of the conference on domestic hygiene. Sir Joseph Fayrer has accepted the post of President of the Congress. Other distinguished medical men and sanitarians have promised to be present and a meeting of much importance and interest is expected.

Habitual Inebriates.

At a meeting of the city magistrates held on April 21st a circular letter from the Lord Mayor of Manchester was read inviting support to the tenour of the following resolution recently passed by the Manchester Bench:—

That in the opinion of the justices of the city of Manchester here assembled it is of urgent importance that further provision be made by law for the restraint of habitual drunkards with a view to their reformation. The justices, therefore, trust that the Government will in the forthcoming session of Parliament produce and pass the long-delayed Bill for this purpose, to which those concerned in the administration of justice look as the only hope of dealing properly with those criminal inebriates on whom the ordinary sentences have no effect.

Representations upon the same subject were read from the British Medical Association and the magistrates of Leeds. Some criticism followed upon details and the resolution was ultimately carried. A copy was ordered to be sent to the Home Secretary and to the Members of Parliament for the city. Some result of a beneficial kind is expected from the House of Commons' debate upon the question—certainly not before it is needed to deal with this much-vexed and difficult question.

April 26th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Medical Guild.

THE report of the Medical Guild for 1897 shows that it is gradually becoming a powerful instrument for the abatement of various evil influences affecting the profession, whether they come as attacks from without or arise from misguided action on the part of the weaker brethren. The following subjects, among others, have been considered during the past year: Quack practice in various forms, medical aid associations, midwives, provident dispensaries, club and allied practices, consultations with "cheap doctors" (but as to this last it must be confessed that no conclusion was arrived at), a tariff of fees, unprofessional advertising, hospital reform, &c. With regard to one vexed question the following resolution was passed at the meeting on Nov. 5th last: "That the Council of the Medical Guild places on record its strong dissatisfaction with the present practice which obtains in the majority of the hospitals of Manchester and Salford of charging patients for services rendered, as, in its opinion, hospitals supported by voluntary contributions and which are charitable institutions ought not to exact such fees." The final clause of this resolution may perhaps remind one of what is called ungallantly a woman's reason, but it raises the question which underlies this practice—Are hospitals supported by voluntary contributions in the future to be charities? or are they to be places of business, where payment is made for services rendered? Are they to be institutions for the medical relief of the genuine poor? or are they to be in direct competition with the much suffering and, perhaps wisely, much complaining general practitioner? The guild can claim some success in restricting "the exploitation of the profession by medical aid societies promoted by interested laymen," and the council passed a resolution at one of the meetings strongly deprecating "the action of any medical man who, by giving such aid as permits of the intervention of any third party between medical practitioners and their patients, deals a severe blow at the best interests of the profession as a whole." This "intervention of any third party" is an impertinence which if submitted to is degrading to the medical profession and so destructive of the self-respect of each individual member of it thus interfered with that one cannot wonder, seeing how often it has been tolerated, at the light esteem in which the profession is held by those who so manipulate it for their own purposes. In accordance with English custom the members of the guild have had, not a dinner, but the ancient meal of supper together. It was a great success and "it is in accord with the principles of the guild to promote cordiality and good fellowship amongst the members." It is much to be wished for that the career of the guild should be prosperous, that its numbers and strength should rapidly increase, as it would become a most effective

agent for checking and thwarting the attacks, open and insidious, which our profession has continually to meet.

The Jubilee of Modern Spiritualism.

Demonstrations were held in St. James's Hall, Manchester, at the beginning of April to celebrate the jubilee of modern spiritualism, and were attended by a large number of the supporters of the Spiritualists' National Federation in Manchester and other parts of the country. Mrs. E. H. Britten of Manchester, described as "a notable apostle of spiritualism," opened a four days' jubilee bazaar and international fancy fair the object of which was to raise £2000—a very material agent—towards a propaganda fund "to promote the spread of spiritual knowledge and enable those who sit in the Valley of Shadow, in fear of death and the hereafter, to realise that man is a spirit, naturally immortal, progressive, and responsible; that there are no dead—all live, and under favourable conditions can communicate with their friends and loved ones, and help, guide, comfort, and bless them." On the platform there was a reproduction of the frame house at Hydesville, New York, where on March 31st, 1848, it is stated "that the spirits by 'raps' responded to questions and established a method of intercourse which has been adopted in all parts of the world." It is remarkable that the spirits in America—that ingenious and labour-saving land—should invent so clumsy a mode of sending messages from another world. Mrs. Britten declared, "after nearly forty years' experience ..... that it was the first scientific religion that the world had ever known and came from the source of all light—God our Heavenly Father—and from none other." She told how Victor Hugo had said to her again and again: "There is no more death; that which is called so is a splendid success," a remark characteristically French. During the afternoon a great tea-meeting was held, at which, it is said, about 2000 people attended, and this was followed by a mass meeting in the evening at which about 3000 people were present. The chairman, a Mr. Wallis, said that while fifty years since there were no spiritualists, in their sense of the word, to-day there were millions all over the world. Many addresses were given by apparently enthusiastic believers, and according to one gentleman much has been done by the movement, for it "had had to educate the Church and men of science and the general population as well." Possibly the general population is sadly ignorant of what has been done for it. But "most of all," as he said, "they had had to educate their own party and to develop their spiritualists out of the spiritualism that the angels brought to them from the spirit world." This was a task, and it is wonderful how Mr. Moore and his friends did it even with the help of the angels. Many of these people are no doubt sincere and belong to the so-called educated classes, but education does not necessarily confer wisdom or judgment in the sifting and weighing of evidence. It would be impolite to speak of "cranks," and yet there is an old saying "there's nothing so queer as folk."

Convalescent Pavilions at Ladywell Sanatorium.

A resolution was unanimously adopted at the meeting of the Salford Borough Council on April 6th in favour of erecting two convalescent pavilions on the land at Ladywell, one for scarlet fever patients with provision for 48 beds and the other for typhoid convalescents with 32 beds. The estimated cost of the new buildings will be £11,800.

April 25th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

St. Andrews University and Dundee College.

THE omens in connexion with the long-standing dispute between these two bodies at last appear to be favourable. At the recent meeting of the University General Council a much more reasonable and pacific tone prevailed and there is reason to believe that a practical scheme of agreement will soon be in operation. It is understood that the University Court has arranged to spend a considerable annual sum on the medical school at Dundee and that as soon as funds are available further chairs will be established there.

Glasgow University.

The classes for the summer session were opened on April 19th. The class of practical pathology is to be conducted by Professor Coats, who to the general gratification has returned from his Australian trip in restored health. The new Professor of Forensic Medicine has commenced his duties and he will also undertake the teaching of public health. Though no official action has been taken in connexion with the establishment of a chair in this last-mentioned subject the proposal has by no means lapsed and in the meantime laboratory work will be conducted under Professor Glaister's direction. The university court has reappointed Dr. Charles Workman to be an extra examiner in the subject of pathology for degrees in medicine and surgery. The court has adopted the report of the Universities Joint Committee in favour of action being taken to prevent any medical graduate using the name or title of his degree after his name has been removed from the Medical Register.

Glasgow Philosophical Society.

The meeting of this society held on April 20th, Dr. Ebenezer Duncan being in the chair, was occupied by a paper on the Bubonic Plague by Dr. Alexander Ferguson of the Western Infirmary Pathological Institute. Dr. Ferguson traced the history of the disease from outbreaks which occurred in Lybia, Syria, and Egypt in the third century B.C. and expressed the opinion that the present outbreak in Bombay was probably due to conveyance of the disease from Hong-Kong. The bacteriology of the disease was then discussed and a description given of the insanitary condition of the native quarters in Bombay; reference was also made to the various methods of serum treatment. The lecture was illustrated by lantern slides and microscopic demonstrations. At the same meeting Mr. Addison of the Deaf and Dumb Institute, Langside, read a paper on Deaf Mute Education, in which he advocated the establishment of a college for providing deaf mutes with opportunities for secondary and higher education and quoted in support the success of such an institution in America. Dr. Ebenezer Duncan also advocated Mr. Addison's suggestion.

Handsome Bequests to Glasgow Charities.

By the will of the late Mr. Adam Teacher a sum of £50 000 is left in trust to be divided among the infirmaries and other charities of the city. In addition, on the expiry of certain life interests, the further sum of £30,000 is to be divided between the Royal, Western, and Victoria Infirmaries.

Medical Appointments.

The Govan District Lunacy Board have, on the nomination of Dr. Watson, the superintendent, appointed Mr. Francis Odell Simpson, pathologist and senior assistant of the West Riding Asylum, Wakefield, to be senior assistant medical officer in the Hawkhead Asylum. Mr. Hugh Galt, M.B., B.Sc. Glasg., D.P.H. Camb., has been appointed Professor of Forensic Medicine and Lecturer on Public Health in St. Mungo's College, Glasgow, in succession to Professor Glaister, resigned.

April 26th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Important Verdict as to Medical Fees in Hospitals.

A RATHER important question as to the liability of hospital patients for medical fees was investigated by Mr. Justice Gibson and a special jury in the Nisi Prius Court, Dublin, on April 20th. Dr. J. J. Cranny, one of the surgical staff of Jervis-street Hospital, brought an action to recover £25, a fee alleged to be due to him by Mr. Thomas Lee, recently a patient in the institution, to which he had been brought with a compound fracture of his leg due to a street accident. It appeared that the defendant's leg was set by Dr. Cranny, who afterwards visited him at the hospital on thirty occasions and twice subsequently at his private residence. In support of his claim Dr. Cranny stated that it was the custom to charge medical fees to well-to-do patients in hospital. The defendant being a gentleman of considerable means he fixed 25 guineas as the amount of his fee. He had been sent a cheque for 5 guineas, which he returned. Mr. Meldon, the senior surgeon of the hospital, gave evidence as to the reasonableness of the amount claimed. The resident surgeon of the hospital, Mr. Caraher,

deposed that he was paid a salary and not allowed to accept money from the patients, while the visiting staff received no salary or other emolument except the students' fees. The secretary of the hospital, Mr. O'Brien, stated that there were no fees prescribed in either the public or private wards, but that people were supposed to pay according to their means. Dr. Cranny's patient occupied a private ward and acknowledged that a good cure had been effected in his case. For the defence it was alleged that Dr. Cranny attended the defendant, not at his request, but at the bidding of the governors of the hospital in his capacity as surgeon to the hospital and that the defendant by paying 3 guineas for treatment there had discharged all claims against him for medical attendance. The defendant stated, moreover, that the 5 guineas which he had offered to Dr. Cranny were given for the two visits which he had paid to him at his private house. He had been twice in the hospital and on each occasion before leaving gave £5 as a present to the hospital funds. No question as to medical fees was raised while he was there. Mr. Justice Gibson said the question, which he would leave to the jury, was whether Dr. Cranny rendered services on the terms that he was to be paid by the defendant. There should be, he thought, a set of rules in Dublin hospitals such as existed at St. Thomas's Hospital, London, where a man paid so much and received everything that he required. It appeared that in Jervis-street Hospital there was no formal rule. He trusted that in future when a hospital medical man intended to treat a patient as a private patient and charge him fees he would have an understanding on the point. The jury found that the plaintiff did not render the services on the terms that the defendant should pay especially therefor and judgment was accordingly entered for the defendant. The jury expressed their agreement with the judge that there was no reflection of any kind on Dr. Cranny for having brought the action as he did so honestly, believing himself to be acting rightly.

The Royal College of Physicians of Ireland and the Viceroy.

On the evening of April 23rd Sir George Duffey, the President of the Royal College of Physicians of Ireland, had the honour of entertaining at dinner at the College the Lord Lieutenant of Ireland, K.G., and a number of distinguished guests invited to meet his Excellency. The President occupied the chair. On his right sat the Lord Lieutenant, Lord Monck, Sir William Thomson, Sir William Kaye, Sir William Stokes, Sir William Kynsey, Dr. Grimshaw (the Registrar-General), Surgeon-Major-General Preston, Dr. Bull, and Dr. Beatty; on his left were Lord Ashbourne (the Lord Chancellor), Sir David Harrel, C.B., Sir Charles Cameron, Sir F. X. MacCabe, Sir Philip Smyly, Sir C. Nixon, Dr. Atthill, Mr. Swanzy, and Dr. J. W. Moore.

The Sanitary Congress, August, 1898.

The committee of the section of Preventive Medicine and Vital Statistics met on April 20th at the Offices of Public Health, Cork-hill. The chair was occupied by Sir George Duffey, the President of the Royal College of Physicians of Ireland, and subsequently by Dr. Grimshaw, the Registrar-General and president of the section.

Belfast Corporation (Hospitals) Bill.

The board of management of the Belfast Royal Hospital have been compelled, as they say, "with sincere regret," to notice certain statements which have been made in a petition of Roman Catholic ratepayers and inhabitants of Belfast in connexion with their opposition to the Bill promoted by the Belfast Corporation [1] to enable that body to grant a site to the proposed Royal Victoria Hospital. In the reply issued by the Royal Hospital authorities it is said that this regret is much increased by the fact that not only are several of these statements entirely destitute of foundation, but that they are calculated to excite sectarian prejudice against an institution the benefits of which have been always open to the sick of every creed and class with the most absolute impartiality and in which questions arising out of differences in creed, at all times exceedingly rare, have been for many years altogether unknown. Paragraphs 6 and 7 of the Roman Catholic petition contain the following statements: "Your petitioners will have no representation on the committee of management of the said hospital and no voice in the appointment of the managing, medical, surgical, or nursing staffs of the said hospital." "It is understood and believed that the new hospital is to take the place of the existing Royal Hospital. Your petitioners' co-religionists have been almost entirely excluded from the management and staffs of the hospital, and notwithstanding repeated remonstrances no provision has been made for ministering to the spiritual wants of Catholic inmates. Moreover, the Catholic poor requiring hospital accommodation very often found it impossible to obtain access to the wards of the Royal Hospital in consequence of the system of nomination for admission to the wards of the hospital which prevailed and still prevails." In their reply the Royal Hospital board of management say it is difficult to understand how assertions so entirely contrary to fact can have been seriously put forward. At no period did there exist any religious test or qualification for becoming a member of the general committee or of the board of management or of the medical and surgical staff of the Royal Hospital. According to the charter, everyone who subscribes £50 in one payment or £10 annually for six years becomes thereby a life governor and member of the board of management, and every subscriber of one guinea annually may be elected a member of the general committee and subsequently of the board of management. Of those qualified by payment of £50 8 are Roman Catholics; of those elected by the one guinea subscribers there are 3 Roman Catholics out of a total of 15, and of these one, an active and respected member of the board, is a Roman Catholic priest. From 1837 till the close of his valuable life the Right Rev. Dr. Denvir, Roman Catholic Bishop of Down and Connor, was one of the most influential and respected members of the board of management. From 1839 until the present time the medical and surgical staff have never been without one Roman Catholic member, commonly there have been 2, and occasionally 3. The relations of these gentlemen with their colleagues have been always of the most cordial and amicable nature. For many years a Roman Catholic surgeon filled the post of secretary and for the last nine years a member of the same church (Professor Cuming, M.D. R.U.I.) has been chosen by the suffrages of his colleagues to occupy the position of chairman of the staff. The principle of non-sectarianism has been carried out with the most scrupulous care in every detail of hospital management. No question as to his religious belief is ever addressed to any applicant for admission to the hospital, no illuminated texts or religious emblems are displayed on the walls, no public prayers are recited in the wards, there is no chapel within the building,—in fact, the hospital is managed as an institution with the primary object of the cure and relief of disease, while at the same time the committee has taken pains to give to the sick every facility for obtaining the aids and comforts of religion. The following notice is placed in the hands of every patient on admission: "If at any time while you are an inmate of this hospital you feel desirous of seeing a clergyman, on your communicating your wish to one of the medical staff, the house surgeon, or a resident pupil, the clergyman you name shall be sent for provided the visit is considered not injurious by the medical attendant." And further information on the same subject is given in a notice hung up in wards and passages. Every possible provision has been made for the convenience of clergymen called on to give the ministrations of religion to any of the inmates. The charge that the Roman Catholic poor found it very often impossible to obtain access to the wards of the Royal Hospital is sufficiently met by the fact that while it is impossible to state accurately the relative number of Roman Catholics who have been treated in hospital, as no inquiry is made regarding the religion of patients and there are consequently no records, it is the opinion of all those connected with the institution and who have the best opportunities of forming a judgment on the question that about one-half of the patients admitted to the wards are members of that Church, while their co-religionists probably do not amount to more than one-fourth of the population of the city of Belfast. It is most unfortunate that this sectarian dispute should have arisen about the new Royal Victoria Hospital, towards the building of which the inhabitants of Belfast so generously contributed over £100 000 as a memorial of the Jubilee of Her Gracious Majesty Queen Victoria.

April 25th.

[1] THE LANCET, April 16th, 1898, p. 1083.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Rebuilding of the Academy of Medicine.

FOR a long time past the Academy of Medicine has held its meetings in a building which it is only allowed to use temporarily and which in addition is quite insufficient for the purpose. It is the old chapel attached to the buildings of the Charité Hospital and the hall used for meetings is on the ground floor, while the first and second floors are occupied by patients. There are no rooms or buildings which can be used for official work, for storing Transactions, for the library, or for any of the various departments which are under the care of the Academy—for instance, the vaccination department, the board in charge of prophylaxis and treatment of epidemic diseases, the board to which is entrusted the care of the various mineral springs, the sanitary and statistical departments, and the office for dealing with awards granted for sundry scientific researches. This state of matters, which has gone on for forty years, is the cause of continual complaints on the part of the Academicians — complaints all the more justified inasmuch as the Academy is the owner of a plot of ground near the Luxembourg on which it should long ago have erected the necessary buildings but which the State has utilised for the erection of some sheds serving as a temporary chemical laboratory for the Faculty of Sciences pending the building of the new Sorbonne. When this last is rebuilt the temporary buildings, instead of being pulled down and the site handed over to its rightful owner the Academy, are to be used as a new school of industrial chemistry, so that the State has been obliged to find another site for the Academy. That body wish that the new site should be fairly near the present one, so as not to cause unnecessary inconvenience to members. An understanding has been arrived at between the Government and the Academy for the purchase of a plot of ground in the Rue Bonaparte and a decree has just been voted by the Senate and the Chamber authorising the Education Minister to take the necessary steps. The total expense is estimated at 1,500,000 francs, of which the Academy will pay 540,000 francs by annual instalments according to the varying sums needed for the works.

The Learned Societies' Congress.

The annual meeting of the learned societies was held at the Sorbonne from April 12th to April 16th. This congress (originally organised by Durny with a view of being a centre for the reception of the work of the numerous provincial societies and so providing an annual stimulus to their zeal), of which the Minister of Education was president, concluded by a grand soirée held at the Ministry when a certain number of decorations were distributed. The section of the sciences of medicine and hygiene had some very interesting meetings and discussions. Among the papers read were the following:—On the Treatment of Pulmonary Tuberculosis by means of Ichthyol (Professor Combemale), on Infant Feeding (Dr. Lobet), on Tuberculosis in the Army (M. Decaux), and on Suicide among Children (M. Moreau).

The Resection of the Sympathetic.

Messrs. Combemale and Gaudier of Lille showed a patient before the Academy of Medicine at the meeting of April 19th. The patient was the subject of exophthalmic goitre and she had been operated on by undergoing resection of the sympathetic. The results were as follows: first, a most important diminution of exophthalmos; secondly, lowering of the beats of the heart from 200 to 100 in the course of a week while at the same time the painful phenomena in the præcordia disappeared; and, thirdly, there was no marked effect upon the goitre itself. Messrs. Combemale and Gaudier concluded from their observations that in cases of exophthalmic goitre when the tachycardia is intense and continuous, when this is the only symptom, or when there is also exopthalmos, there is always the risk of dangerous symptoms supervening. In such cases section of the cervical sympathetic, which acts most probably by preventing the hypersecretion of the thyroid gland, is the best operation to do. At the same meeting M. Jonnesco read a paper on the Cervical Sympathetic in Epilepsy and glaucoma. He has performed this operation forty-six times. In epilepsy out of 35 cases, some unilateral and others bilateral, 15 had been kept under observation for from nine to eighteen months; 9 were cured completely and no untoward effects had been observed. In exophthalmic goitre total and bilateral resection had always been done. Four operations had been performed from fifteen to twenty months ago, and recovery was perfect in all. The tachycardia disappeared fairly quickly, the goitre got smaller and harder, and as for the exophthalmos it disappeared almost at once. In 6 cases of glaucoma the results were very valuable. When the glaucoma was simple and chronic the results were excellent; the sight improved and the pain disappeared. In one case where glaucoma had appeared after the goitre, bilateral and total resection had acted upon both these affections and a cure was the result. With regard to irritative glaucoma the results were much less satisfactory. Vision did not improve, although the tension in the eyeball became much less. Resection of the cervical sympathetic is, then, in the case of some patients a good operation and gives good results in a number of diverse diseases.

The Invariable Presence of Pneumococci on the Surface of the Tonsil.

On April 15th MM. Bezançon and Griffon laid before the Hospitals Medical Society the results of some researches which they had made on the presence of the pneumococcus on the surface of the tonsil. In place of using inoculations *en masse*, after the method of Netter, they employed a culture medium specially fitted for the pneumococcus—namely, the serum of a young rabbit. It is generally admitted that the pneumococcus can be found in the throats of healthy individuals about once in five times, but according to MM. Bezançon and Griffon this is a wrong proportion and due to faulty technique in the examination. The pneumococcus may exist constantly as a saprophyte in the same way as the streptococcus. If up to now the pneumococcus has not been found in more than a fifth of the cases examined it is easily explained by an alteration in the method of cultivation, the method of culture being for choice by taking some of the tonsillar mucus and not simply the saliva. The forty individuals whom MM. Bezançon and Griffon examined were of varying ages and kinds—quite young children, adults, old men, some taken from a hospital atmosphere, some from laboratories, and some living under circumstances from which any source of contamination could be reasonably excluded. In none of these patients was there any history of pneumonia. The only conclusion which can be drawn from these facts is that this organism is found in a great variety of diseases.

The Military Hospital at Nice.

The President of the Republic has just been taking a few days' rest at Nice. During his stay there M. Faure made a thorough examination of the military hospital and inquired into the matter of the everlasting negotiations which have been going on with the municipality. More than thirty-five years ago the garrison of Nice requested an increase in the hospital which had been originally founded under the Italian *régime*. However, the sanitary service is to-day very nearly in the same condition as it was in 1860. The garrison then numbered 1100 men but now numbers 6000. There are no means for isolating infectious or suspicious cases and the regimental surgeons are compelled to treat a portion of their patients in the infirmary. The President has promised to use all his influence to put an end to this state of things, owing to which the good name of the French sanitary military service has with some reason been discredited.

April 26th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The English-speaking Practitioner in Italy.

IN the following circular addressed to the prefects throughout the kingdom by the Under-Secretary of State for the Home Department may be recognised the death-knell of the Santini Bill, which had for its object to exclude from practice in Italy all English-speaking medical men not provided with an Italian diploma. I give the circular textually: "I have ground for believing that not in every instance nor in every quarter is respect paid to the

regulations which, in terms of the 'Legge Sanitaria' now in force (Art. 23), apply to foreign physicians and surgeons professionally engaged in the kingdom. To this, therefore, I recall the attention of your worships, begging you kindly to exert a prompt and effective surveillance to the end that, except in special cases for which those physicians and surgeons are expressly summoned from abroad, the said practitioners, if they have not obtained the diploma of Italy, should restrict themselves to vouchsafing professional assistance to foreigners only. I shall feel obliged by your graciously acknowledging this circular.—Signed (for His Excellency the Minister of the Interior), ARCOLEO." Considering that English-speaking practitioners never court an Italian *clientèle*, for the reason (among others) that the low scale of remuneration makes it not worth their while, considering, moreover, that they only ask to be allowed to practise among their compatriots without let or hindrance, we must hold this circular, issued by authority of Government, as giving official and final sanction to the *status quo*, all attempts to modify which (in the sense of the Santini Bill particularly) being discountenanced and therefore to be abandoned. The Di Rudini Government may be congratulated on this decisive step which, let us hope, none of its successors will be ill-advised enough to reverse. One significant clause in the circular cannot have escaped your readers' notice—that, to wit, in which it is conceded that in special cases foreign consultants not possessing the Italian diploma may be called to Italy to give professional advice to non-compatriots, Italian or other. This has to my knowledge been a practice by no means rare. Just ten years ago, when the late Emperor of Brazil was confined to bed in Milan and under the treatment of his body-physician assisted by Professor Semmola of Naples, the supervening cerebral complications led to Professor Charcot being summoned from Paris and with the best results. This happy intervention, however, the Santini Bill would have made irregular and illegal. Now we have it on authority of Government that it is quite a legitimate proceeding and that on the occurrence of a parallel case it may be open to the patient's family and professional advisers to reinforce Italian opinion by that of another school, not only French or Austrian or German, but British or American or colonial.

The Government Inquiry into the Foundling Hospitals.

The "incredible scandals" of which these institutions—particularly in the Neapolitan and Venetian provinces—have been the source or centre are well known to readers of THE LANCET[1] which has also noted from time to time the steps taken to put a stop to them and to introduce a more humane order of things. The "Commissione Reale d'Inchiesta"—medical in its presiding head (Dr. Tommasi-Crudeli) and largely medical in its composition—has been for several months employed in verifying those "scandals" and lately held at the Home Office a plenary sitting to take note of the work already done and that remaining to do. Its chief business was to consider the report of Dr. Raseri, who had been commissioned to collect and summarise the returns of the medical men told off to inspect the provincial foundling hospitals. This duty Dr. Raseri and his subordinates were found to have discharged with thoroughness and effect, whereupon the "Commissione" decided to proceed to inspect on the spot those institutions which Dr. Raseri had indicated as exceptionally bad in their administration and thereafter those which had a fairer record to show. The first localities to be visited turn out to be those already indicated by THE LANCET as offering the grossest abuses in foundling management, and these are Naples and some other cities of the south, and Padua, Venice, Vicenza, and Rovigo in the north. The last-named city will receive peculiar attention as having initiated reforms at once bold, humanitarian, and economical, diminishing the mortality while reinforcing the surveillance, and all this at less outlay than hitherto considered possible. As I have said, the "Commissione" is largely medical in its *personnel* and for the new departure it is taking will command the services of Dr. Celli (Professor of Hygiene in the Roman School) for the south, and of the Senator Tommasi-Crudeli (the well-known pathologist) for the north.

April 23rd.

[1] THE LANCET, June 12th, July 10th, and Oct. 2nd, 1897.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Kasr el Aini Hospital and Medical School.

AT the beginning of 1884 Mr. Clifford Lloyd among his reforms at the Ministry of the Interior, separated the Government Hospital from the School of Medicine and placed the hospital under the direction of Mr. H. Milton. Under his management the building and its inhabitants have been thoroughly reorganised, so that the hospital will in many respects bear favourable comparison with any in Europe. This reform has been a slow growth of many years' zealous toil and reflects the greatest credit upon Mr. Milton. But the school, divided from the hospital only by a paling, has never made the same strides towards a European ideal. Three energetic Englishmen have done their best to leaven the lump of Egyptian inertia, but the teaching language has been Arabic, and it has for years been known that the teaching staff was unfit for modern requirements. One example of this archaism will suffice. The professor of surgery is a man who has done very good work in his time, but his methods in the wards and his systematic lectures are not based on asepticism. Lately, too, the school curriculum has been extended to six years, examinations have been made more severe, and, unfortunately, the initial pay offered to the Government sanitary officer has been reduced to £72 a year. For these reasons, among others, the medical school has ceased to be popular with parents and pupils and it became quite necessary to make some reform. Several times the suggested study of the question had to make way for more pressing needs, such as cholera, the Soudan, and threatened plague, but last October Dr. Perry, superintendent of Guy's Hospital, was invited by the Egyptian Government to report to them in Cairo on the school and hospital. He wrote out a carefully prepared scheme for their future guidance, and this scheme was for five months under the deliberation of various officials of the Government. Now, with a few modifications, it has been passed by the Council of Ministers and will come into effect in October next. The school course has been reduced to four years but a fifth post-graduate year will be open to those who wish for extended study. This fifth year will be compatible with resident hospital appointments and will count as the first year of service for those who elect to enter the Government employ. The school and hospital are to be merged into closer relationship than heretofore and one head is to direct both with the aid of a school committee and a hospital committee chosen from the staff. The director is debarred from private practice and from professional work in the hospital and is to reside within the precincts. Dr. Keatinge has been selected as the first director. A few native teachers will be superannuated, and preliminary scientific subjects will be omitted from the course. Five or six new appointments will be filled by Englishmen, including two resident posts worth about £240 a year, with rooms but without board. The visiting physicians and surgeons, with, of course, right to private practice, will be paid at the rate of £400 and £320 a year. The details of these vacancies have not yet been fixed by the Government, but they will shortly be advertised in the medical press.

Institut Egyptien

Exactly a hundred years ago Napoleon created an Egyptian Institute for discussing scientific questions relating to this country. Several papers bearing on medicine and sanitation were read by well-known army doctors such as Desgenettes, Bruant, Savaresi, and Larrey. Eventually the Institute decayed and was revived by French influence, since when it has been a French stronghold from which all but a few Egyptians and Italians were excluded. For some years there has been but one English member and he was only elected after being blackballed three times. But now a compliment has just been paid to the English medical men in Egypt by the unsolicited election of Dr. Sandwith to a vacancy among the forty.

British Wounded in the Soudan.

Written despatches from the Atbara have not yet reached Cairo, but we know by telegram that the wounded are doing as well as can reasonably be expected under antiseptic care in a hot, dry climate. The following particulars of the

wounds received by soldiers in the storming of Mahmoud's entrenchments on April 8th show that the firing must have been directed low—perhaps after several volleys fired over the heads of the attacking party. Head, 1 severe, 1 slight wound; chest and stomach, 3 severe, 4 slight; hand and arm, 4 severe, 10 slight; shoulder and back, 2 severe, 3 slight; thigh, 3 severe, 3 slight; knee, 7 severe, 1 slight; leg and ankle, 18 severe, 6 slight; not specified, 16; total, 82 wounded. All the wounds in the British brigade were from rifle-bullets, with the exception of two slight spear-wounds, and to-day a telegram has come to say that all the bullets have been extracted. The wounded are now at Genenetti, on the Nile, about twenty miles north of Berber. Thence the new railway will carry them to Wady Halfa, where they will be shipped by steamers to Assouan. The slightly wounded will then travel by post boat to Luxor and thence by train to Cairo, while for the severe and dangerous cases Messrs. Cook's steamer *Mena* is being fitted up as a hospital ship to bring them by river from Assouan to Cairo, under charge of Surgeon-Captain O'Callaghan.

Medical Officers.

The following officers are now with the British troops at the front:—Brigade-Surgeon-Lieutenant-Colonel Macnamara as principal medical officer; Surgeon-Major Robinson, Surgeon-Major Smythe, Surgeon-Major Stuart, Surgeon-Major Braddell, Surgeon-Major Carr, Surgeon-Major Adamson, and Surgeon-Major Mathias; Surgeon-Captain Marder, Surgeon-Captain Reilly, and Surgeon-Captain Borradaile; Surgeon-Lieutenant Bliss, Surgeon-Lieutenant Cummins, and Surgeon-Lieutenant Hopkins. Nearly all the senior officers were fortunate enough to be at the fight of April 8th. It is now fully believed that there will be no more fighting until the Nile rises, and the army generally is anxiously expecting a few weeks' leave.

Cairo, April 18th.

Obituary.

HENRY MARSHALL, M.D. EDIN., F.R.C.S. EDIN., F.R.S. EDIN., M.R.C.S. ENG.,

CONSULTING SURGEON TO THE BRISTOL GENERAL HOSPITAL.

AFTER a short illness Dr. Henry Marshall died at his residence, Caledonia-place, Clifton, on April 24th, the cause of death being pneumonia following influenza. Dr. Marshall, whose father was for many years vicar of Christ Church, Clifton, was born at Edinburgh in 1833 and received his medical education at Edinburgh University, where he graduated M.D. in 1855. Four years later he obtained the F.R.C.S Edin., having taken the M.R.C.S. Eng. in 1854. After holding resident appointments at the Edinburgh Royal Infirmary Dr. Marshall commenced practice in Bristol and was appointed surgeon to the Bristol General Hospital. Having practised as a surgeon in Bristol for about ten years he severed his connexion with the hospital, except that he was appointed consulting surgeon to the institution, and henceforth practised as a physician. He was also for some years lecturer on medical jurisprudence at the Bristol Medical School. The deceased was F.R.S. Edin. and a past-president of the Bath and Bristol branch of the British Medical Association. Dr. Marshall on one occasion became involved in litigation through having, with another medical practitioner, signed a certificate of lunacy in the case of a woman, who brought an action which was tried at the Bristol assizes. A verdict was returned in favour of both defendants and members of the profession raised a subscription to show their sympathy and to defray the costs of the action. Dr. Marshall was a zealous Churchman and was for many years president of the local branch of the English Church Union. Sympathetic allusions were made to his death by the Bishop and the Dean of Bristol in their sermons on April 24th. The deceased, who was one of the best known medical practitioners of Clifton, was extremely popular and highly respected and much sympathy is felt for the widow and children.

ROBERT HENRY SCANES SPICER, M.D. ST. AND.

THE death is announced at the age of seventy years of Dr. Spicer of North Molton, Devon. He was the only son of the late Robert Spicer of Exeter and obtained his professional education at the Middlesex Hospital. After taking the diploma of M.R.C.S. Eng. in 1855 he at once returned to his native county to North Molton where he practised for forty-three years. He was at work to the last, only the day before his death setting a fractured leg. He passed away after a few hours' suffering from cardiac failure, of which, however, he had had previous warnings. He had always taken the keenest interest in the welfare of the parish and its inhabitants and many a young fellow in both hemispheres owes his start in life and his present good position to the recommendation, advice, and assistance of Dr. Spicer. He was a man of wide general information and culture and was, moreover, an enthusiastic and accomplished sportsman of the old school, to which belonged his friends Parson Jack Russell, Mr. Froude Bellew, and the Rev. John Matthews. Popular and respected by persons of all ranks and opinions in North Devon he has gone to his rest amidst tokens of widespread regret, leaving five children to lament their loss and to cherish his memory.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Jules Worms, principal medical officer of the Northern of France Railway and a well-known authority on hygienic subjects. He was born in 1830 in Alsace and studied medicine in Strasburg. He was in the early part of his professional career anatomical assistant in the Military Medical School of Val-de-Grâce and subsequently served as surgeon in the Crimean War. His investigations on the spread of diphtheria and cholera were well known and he was the author of various articles in Dechambre's Dictionary of Medicine. His reading was especially wide and he frequently brought the advances in surgery and gynæcology made in Germany and English-speaking countries under the notice of his medical brethren in France.—Dr. G. Dragendorff, formerly Professor of Pharmacognosis in the University of Dorpat. He died at Rostock, his native place, where he had been living for several years and where he took his degree of Doctor of Philosophy, for he was not a medical man but a pharmacist. In 1862 he went to St. Petersburg as editor of the publications of the Pharmaceutical Society and director of its laboratory, in which capacity he had to occupy himself to a considerable extent with forensic medicine. In 1864 he was appointed to the chair of Pharmacy and to the charge of the Pharmaceutical Laboratory at Dorpat, or Iurieff as it is now called, where he remained until his resignation four years ago. He published a great number of works on medicinal plants.

THE NINTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.[1]

(FROM OUR SPECIAL CORRESPONDENT.)

HEALTH AT SCHOOL.

ON considering the resolutions which were read out at the final meeting and before the whole Congress it is impossible to avoid a feeling of surprise at their weakness both in bulk and in quality. For instance, one of the best attended sections of the Congress was that dealing with infancy and school life. Here the debates were long and arduous, yet but little was brought forward at the general meeting as resulting from these debates. There was the resolution in favour of the short holiday colonies which I have already described, another demanding that all accouchements should be managed according to the principles of antiseptics, and from the seventh section, which dealt with the question of exercise at school, there were some platitudes to the effect that outdoor exercise was the best form of exercise especially for early childhood and that gymnastics or other special forms of muscular effort which are employed to correct malformations, &c., should be treated as therapeutics rather than as exercise in the ordinary sense of the word. Though there was thus such a poor outcome so far as practical resolutions are concerned, some

[1] Previous reports of the proceedings at the Congress were published in THE LANCET of April 16th and 23rd, 1898.

good papers had been read. The fact is that the Spaniards, who naturally formed the majority in all the sections, have very vague ideas as to the methods of working a congress by means of resolutions. Indeed, the word "resolution" in this sense does not seem to be known to them and the word "conclusion" is used instead, which again is sometimes confused with the word "theme." Thus instead of a pithy resolution consisting of but a few words we were sometimes treated to three or four pages of lengthy dissertations. It was like voting in favour of a pamphlet instead of a resolution. Yet Miss Mercedes Zella worded her conclusions in a practical manner, dividing them under numbered headings: Thus (1) that all school books should be printed in clear, large type; (2) that the paper should not be transparent; (3) that children's eyes should not be strained and that they should not be compelled to stoop over their books; (4) that the lines should not be more than eight centimetres in length, &c. These points, though adopted in the section, were not presented at the general meeting.

STERILISED MILK AND REDUCED INFANT MORTALITY.

One of the most carefully prepared papers read in this section was presented by M. Clement Gény, administrator of the school funds, the *crèches*, and the school colonies of the First Arrondissement of Paris. He showed that the number of children, aged under one year, dying in Paris amounted to 10,000 in 1886; and, in spite of the increase of population, to only 7665 in 1895. The average for the seven first years in this period was 8850, that for the last three years 7573, which is equal to a gain of 14·4 per cent., and this would be higher still if the increase of population were taken into account. In 1886, of the children under one year of age, 364·5 died per 1000; in 1895 the proportion per 1000 was 254·2. The reduction in the death-rate is especially marked in respect to diseases of the digestive organs and with regard to zymotic diseases. There has also been a notable reduction in the number of infants who have died from syphilis, the annual average of deaths from the latter disease being 232 up to 1892 and only 143·5 since that date. But in the same lapse of time the deaths from tuberculosis have increased. M. Gény considers that the more general practice of sterilising the milk given to infants has largely contributed to bring about these good results. This was only done in rare instances previously to the year 1893; but at about that date the utility of such precautions began to be appreciated by the public at large. M. Gény also showed that the proportion of infants who die from diseases of the digestive organs is much greater among those who are fed from the bottle, but that this proportion has been reduced by the abolition of the tubes, the introduction of better bottles, and of sterilised milk. He therefore concluded that the great saving of infant life realised in Paris since the year 1893 is due: (1) to the hygienic measures taken by the city of Paris to prevent the spread of infectious diseases, notifications, disinfections, &c.; (2) to the treatment of diphtheria by the antitoxin serum of Behring and Roux; and (3) to the more general use of sterilised milk and improved feeding bottles. The employment also of the *couveuse* has rendered great service, as formerly 66 per cent. of the children weighing at birth less than two kilogrammes died, whereas now with the aid of infant incubators the greater number are saved. M. Gény therefore urged that hospitals, charitable institutions, and poor relief authorities should provide themselves with incubators so as to help to save the children of the poor.

AN INTERNATIONAL BACTERIOLOGICAL COMMISSION.

The first section, dealing with Bacteriology, passed some important resolutions, which were read out and confirmed at the final general meeting. One resolution was to the effect that an international bacteriological commission should be elected. The names of seven German and six French bacteriologists were suggested, together with those of Dr. Woodhead and Dr. Allan Macfadyen for England. One or two names were mentioned for most of the other nationalities. Then Dr. Janowski, Chief of the Medical Service at the Hospital of the Infant Jesus at Warsaw, proposed a resolution to the effect that there should be a standard definition of diphtheritic antitoxin in all places where serum is produced. On the proposal of Dr. Chantemesse of the Pasteur Institute it was decided that the International Bacteriological Commission should study this matter and report to the next Congress with a view of indicating a method by which antitoxin could be rendered of uniform strength in all countries. Further, the Commission should prepare a report on the question of the harmlessness of anti-diphtherial serum when used in cases of laryngitis and other minor affections. The Commission was also requested to deal with the dangers resulting from the local antiseptic treatment of diphtheria. The section unanimously recognised that such treatment favoured secondary consequences and deprived the organism of its principal means of defence against the malady.

TUBERCULOSIS.

Referring to the Bacteriological Section I should mention an important paper which was read concerning Tuberculosis. At Geneva Dr. Georges Perron commenced some experiments which he continued at Valencia, where Dr. Amelio Gimeno, the general secretary of the Congress, took the matter up energetically. Dr. Jean Torres Babi also joined in the work and the paper was presented in the name of these three gentlemen. They obtained serum from donkeys and with this serum rendered guinea-pigs immune against tuberculosis. The first experiments gave every promise of success. When they applied the serum to human beings they obtained good results for external tuberculosis of the knee and other parts and for lupus. Their patients seemed to be cured. But when dealing with tuberculosis of the lungs the result was very different. Microscopic examination had revealed the presence of the Koch bacillus, but the patients had no fever, no night sweats, and no yellowish-green sputa. Treated with the serum their general health at first seemed to improve and the number of the Koch bacilli decreased in notable proportions. On the other hand, the streptococcus and staphylococcus pyogenes increased. In two cases the last sputa examined showed that the Koch bacilli had entirely disappeared; but with the disappearance of the specific bacillus of tuberculosis hectic fever set in, and one patient died in eight and the other in ten days with the symptoms of septic poisoning. In consequence of these experiences the writers of the paper conclude that tuberculosis and pulmonary phthisis are two absolutely distinct diseases. Tuberculosis is due to the Koch microbe and can be cured by the serum they have prepared. The second is a consequence and after result of the first, due not only to the bacillus of tuberculosis, but also to the streptococcus and the staphylococcus. No remedy has yet been found for this latter development of the disease; it is characterised by hectic fever, nocturnal perspiration, purulent expectoration and cachexia. The experiments made seem to indicate that there is antagonism between the different agents of phthisis and that it is at least dangerous to attack one of these agents without simultaneously destroying the others. Therefore to treat tuberculous phthisis it would be necessary to obtain serum from a donkey which had been rendered immune, not only against the Koch bacillus, but also against the streptococcus and the staphylococcus found in the sputa of phthisical patients. The serum they have prepared from a donkey could be used when dealing only with the Koch bacillus, as, for instance, in the case of children born from phthisical parents, when it could be employed as a preventative.

GEOGRAPHY AND SOCIAL ASPECT OF TUBERCULOSIS.

In the third section, dealing with Climatology, the question of Tuberculosis also came up for discussion. Dr. Albert Palmberg of Finland presided and read a statistical paper on the Geographical Distribution of Phthisis in that country. He did not think the cold was in itself a cause of increased mortality because the Laplanders and those who lived furthest to the north suffered less, but in winter patients could not obtain as much fresh air and out-of-door exercise; also the beneficent effect of sunlight was less felt. In Finland the most fatal months were March and April, when the temperature was relatively high; but at that time, as the contrast between indoor and outdoor temperature decreased, there was less ventilation through the body of the walls and the smaller fires caused less draught.

Dr. Ph. Hauser of Madrid had also a very interesting historical paper on Tuberculosis, from which he concluded that the problem was not only a medical but also a social question. A crusade should be organised against the sputa of phthisical patients. The pathogenic germs were present in all large aggregations of human beings and the disease was one of the consequences of economic and social evolution. The remedy was the improvement of the physical, moral, and intellectual well-being of the population. The disease was the consequence of human degeneration by which the weak were swept away

to make room for the strong. Though infectious it only infected the weak. It may be cured if the patient can be placed under conditions which favour the re-establishment of the equilibrium between his organic forces; and as in the struggle for existence this is often impossible it becomes quite as much an economical or social as a medical question. Section III. finally carried the following resolutions:—

1. The danger of tuberculosis is sufficiently urgent to necessitate legislative intervention.
2. To succeed in this respect we must complete our knowledge as to the causes of propagation or contagion.
3. All nations should study the geography of tuberculosis as the best means of acquiring the necessary knowledge of the subject. To avoid errors this study should be extended over a period of twenty years.
4. The struggle against tuberculosis should be a subject of discussion in all congresses and such discussions should be continued till the disease is finally eradicated.

OLD CLOTHES AND HAIRDRESSERS.

With regard to the prophylaxis of infectious diseases generally a resolution proposed by Dr. F. Ovilo was carried unanimously in the second section and confirmed at the general meeting. The resolution was worded as follows:—

Firstly, old clothes are often a certain vehicle for the transmission of such serious diseases as tuberculosis, diphtheria, small-pox, scarlet fever, &c. The sale of old clothes should be forbidden unless they have been disinfected.

Secondly, the utensils and implements used by hairdressers are often the cause of skin diseases and other more serious complaints such as lupus and syphilis. Each person should use his own scissors, &c., and the authorities should seek by all possible means to induce hairdressers to employ rational means of disinfection. In no case should the master hairdressers be allowed to compel their assistants to attend to the hair of persons bearing evident signs of disease that are known even by the profane (*sic*) public.

URBAN SANITATION.

The discussion which had been anticipated with regard to the drainage of Paris did not take place. Of the two delegates appointed by the Parisian house proprietors' syndicate one only reached Madrid. Evidently he felt that there was a strong majority against him, for he did not venture to raise the question at issue. Consequently the section on Urban Sanitation was able to carry the following resolutions, which were also approved by the general and final meeting:—

1. Public health is ameliorated and the outbreak of epidemics prevented in towns and dwellings by the immediate removal of all fermentable matter and by an abundant distribution of water.
2. The pavement of the streets should be smooth and as impermeable as possible, so as to be easily cleaned and so as to prevent the contamination of the subsoil.
3. Special measures should be taken in the construction of houses, so as to protect the walls and the entire building from damp and from subsoil emanations.
4. The drains within the houses ought to be so constructed and laid as to prevent any stagnation and to secure a rapid flow to the street sewer of soil and slop water. The drain-pipes must be water-tight and air tight, perfectly constructed and ventilated and provided with syphon traps to protect the interior of the dwelling from all sewer air.
5. The public sewers should assure the rapid flow of sewage, so that there shall be no stagnation till the outfall has been reached. The sewers must be thoroughly ventilated.
6. The width of the streets must be as great as possible and in proportion to the height of the houses. This proportion should be established in all localities taking into consideration local and climatic circumstances. The light should have free access to the innermost parts of inhabited dwellings and there should be windows on at least two sides of the building.
7. Special regulations or by-laws should be made in each locality by the public authorities so as to render the practical application of the above principles obligatory. The Government and the municipalities should resolutely seek to realise these principles and more especially those that relate to the interior of dwellings.

THE MILITARY AND NAVAL SECTION.

The Military and Naval Section does not seem to have passed any resolutions, but there were some very interesting debates. The French officers present produced a great impression when they explained that the prevalence of typhoid fever had been reduced in the ranks of the army and the general health of garrison towns improved by prohibiting resort to *cafés* and dram-shops, where the water employed was not above suspicion. The soldiers were ordered not to enter these places and the tradesmen soon found it to their advantage to improve their water-supply.

THE BRITISH SECTION AND THE PERMANENT COMMITTEE.

The Permanent Committee, which was appointed according to the resolution carried at the London Congress, 1891, consists of 29 members, of whom 3 are English, for the division of Hygiene, and of 15, of whom 1 is English, for the division of Demography. Of these 44 members only 10 were present at Madrid and all the 4 British representatives were absent. Fortunately the Permanent Committee may fill up vacancies and may appoint assistant members during a session of the Congress. Consequently the 10 members of the Permanent Committee invited more than 30 of the delegates to assist at the meeting which was to be held early on the Thursday morning. Surgeon-Major Macpherson, delegate of the War Office, and Dr. MacAlister, were requested to be present on behalf of the British Section. It was generally felt that though the Permanent Committee had the legal right to select these gentlemen, still they would hold a much stronger position if their appointment was confirmed by the British Section. Mr. Adolphe Smith, having secured the approval of a few other British members of the Congress, took the initiative of convoking a meeting of the British Section. After a good deal of canvassing this meeting was held at the Hotel de la Paix on the Wednesday after the reception at the Court. 17 British delegates were present and 7 were absent. Dr. MacAlister was voted to the chair. As the members of the Permanent Committee were elected for two congresses at Budapest it was supposed that their mandate would be exhausted at the end of the Madrid Congress. Therefore the British Section thought itself entitled to suggest names for the next Permanent Committee. A good deal was said about figure-heads who did no work and about the mismanagement of the British Section on the present occasion, together with the failure to obtain information and the promised reduction on railway fares. Some delegates, however, testified to the promptitude and courtesy with which Dr. Corfield had answered their letters of inquiry. Others declared that the only information they had obtained was from the columns of THE LANCET. Several prominent names were suggested for the Permanent Committee, and objections were made that, however eminent in the realms of science, these gentlemen had no special experience of international congresses nor were they likely to be able to devote much time to explaining to intending members how they were to obtain rooms and travel at reduced rates, &c. But it was generally agreed that when the next Congress was near at hand a sub-committee or organising national committee would have to be appointed to look after the interests of the British members of the forthcoming Congress. On this understanding the following names were approved unanimously: Lord Lister, Dr. Vivian Poore, Sir Richard Thorne, and Dr. J. Tatham, with the names of Professor Lane Notter of Netley and Dr. Corfield as alternatives if any of the above gentlemen declined to act. The meeting was then about to adjourn, but Mr. Adolphe Smith protested that it was absolutely indispensable to give the British representatives some instructions as to how to act at the meeting of the Permanent Committee to be held on the morrow. He explained that the Congress had of late lost much of its influence because it failed to act in a collective capacity; that as the next Congress would probably meet at Paris an effort would be made to revert to the earlier and better methods of organisation; and he concluded by urging that the British representatives should support such an attempt. This suggestion was approved and the meeting adjourned.

THE PERMANENT COMMITTEE AND THE NEXT CONGRESS.

Forty-seven invitations to attend the Permanent Committee were issued and 40 of the persons who were invited attended. Invitations to hold the next congress at Lisbon and at Brussels were received, but these were withdrawn in favour of Paris during the great Exhibition of 1900. It was then decided that the International Medical Congress and the International Congress of Hygiene should be held in succession one after the other, so that some, at least, of the medical men attending might be present at both congresses. Further, it was resolved to ask the Medical Congress to transfer its section of hygiene to the Congress of Hygiene. With regard to the latter congress the opinion was expressed that the number of sections should be considerably reduced and that, apart from the opening and closing ceremonies, there should be plenary sittings of the entire Congress at which scientific subjects would be discussed. The Permanent Committee confessed that it had failed to revise the resolutions to be submitted to the present Congress but promised to do so in future. A mistake had been made with regard to the election of the Permanent Committee, for though appointed at Budapest it did not sit at Budapest and the two congresses placed under its direction were those of Madrid and the forthcoming congress to be held at Paris. Nevertheless, it was generally felt that the Permanent Committee required to

be strengthened and therefore it was decided to appoint an executive committee which was to act when any emergency occurred. This executive committee was to consist of all the general secretaries of all previous congresses, therefore of experienced congressists, and consequently Dr. Vivian Poore, as the general secretary of the London Congress, represents Great Britain on the executive committee. This committee has the power to appoint three or four persons experienced in the management of congresses. Perhaps we have here, at last, a body technically capable of acting.

A WORD IN PRAISE OF OUR HOSTS.

Looking upon the Congress as a whole I think I may safely assert that it has come to the vast majority of the foreign members as an agreeable surprise. It was not supposed that Spain would do so well, especially in the present critical political situation. The Spaniards are not a business people; they have but little sense of the value of time and these national defects naturally made themselves felt in matters of detail during the Congress. These shortcomings were, however, more amusing than mischievous. For instance, after an excellent dinner given by one of the learned bodies of Madrid the foreign guests present were really more pleased at having the *menu* served to them with the cheese than if it had been forthcoming at the proper time, as this accident supplied the pretext for a little good-humoured merriment. Of the various entertainments and receptions given I have already spoken at some length, but I have not mentioned that the foreign military and naval surgeons were greatly impressed and delighted with the banquet and welcome given to them by their medical colleagues of the Spanish army and navy. It is especially in the social relations established during the Congress that the foreign members have most reason to congratulate themselves on having come to Spain. After all, it is exceedingly pleasant to be in a country where everyone knows how to behave like a gentleman, from the beggar in the streets to the grandee standing on the steps of the Throne. This is all the more welcome as a contrast to the manners displayed by the young students and others who were admitted to the Congress at Budapest. At the Madrid town-hall and elsewhere there undoubtedly was a crush at the buffets, but there were no unseemly scenes. The crush was due to the fact that there were more guests than the building could hold and whenever a foreign delegate made himself known the Spaniards standing in front of him always either made room or tried to pass to him what he wanted. A Spaniard would die a thousand deaths rather than compromise his dignity. A beggar in Spain will refuse relief if it is not given politely. Spain is lacking in the energy, the enterprise, and the capacity for hard work which characterise the virile population of Hungary; but the Spaniards are a race of gentlemen, and this is a very great advantage, especially when so delicate a matter as an international congress has to be taken in hand. Consequently the foreign members carry away with them a very favourable impression of the Madrid Congress. They were, I repeat, most agreeably surprised. If Spain is as ready and able to face the United States of America in war as she has proved herself able, contrary to the anticipations of many, to carry out the work of peace which the Congress came to achieve, the Americans are likely to experience surprises as disagreeable as those of the Congress were agreeable.

TORBAY HOSPITAL RECREATION GROUND.—The land acquired by Torquay as a Jubilee memorial of the Queen's reign was on April 14th formally presented to the governors of the Torbay Hospital by Mr. Rockhey, the ex-mayor, and has been converted into a recreation ground for the use of the patients and staff. The outlay in connexion with the scheme was about £1700.

PRESENTATIONS TO MEDICAL MEN.—On the occasion of the presentation of certificates to the successful members of the Pinxton Collieries Ambulance Class on April 17th, Mr. T. Corkery, M.D. Irel., of Alfreton, the instructor to the class, was the recipient of a silver vegetable dish as a thank-offering for his First Aid instructions.—Dr. Connor, superintendent of the Glasgow Medical Mission, has been presented by the workers and friends associated with him with a number of surgical books and instruments as a practical recognition of his services during the past twelve years.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—In April the following candidates passed in the subjects indicated:—

Surgery.—J. Buckley (Section II.), Manchester; F. W. Chesnaye (Section I.), St. George's Hospital; A. E. Freer, St. Mary's Hospital; F. Hasler (Section I.), London Hospital; T. C. Last, St. George's Hospital; F. A. Leete (Section I.), Royal Free Hospital; G. M. F. Pereira, Calcutta and Royal Free Hospital; J. M. Sanderson, Cambridge and London Hospital; and T. B. Sellors, Middlesex Hospital.

Medicine.—J. Buckley (Section II.), Manchester; E. R. R. Cheesman, Charing-cross Hospital; W. A. Clement, Bombay; J. L. Elliott, Leeds; S. R. Hallam, St. Thomas's Hospital; F. Hasler (Section I.), London Hospital; H. W. Hues, Birmingham; E. J. Trevor Jones, St. Thomas's Hospital; F. A. Leete (Section I.) and Miss Pantin (Section II.), Royal Free Hospital; O. T. A. Phillips, Cardiff and London Hospital; and J. M. Sanderson, London Hospital.

Forensic Medicine.—E. R. R. Cheesman, Charing-cross Hospital; W. A. Clement, Bombay; J. L. Elliott, Leeds; S. R. Hallam, St. Thomas's Hospital; F. Hasler, London Hospital; H. W. Hues, Birmingham; M. Jenkins, Guy's Hospital; J. Jones, Edinburgh and London Hospital; F. A. Leete, Royal Free Hospital; O. T. A. Phillips, Cardiff and London Hospital; and W. R. Wilson, Dublin and Belfast.

Midwifery.—J. Brown and J. Buckley, Manchester; P. Cator, St. Bartholomew's Hospital; H. E. Dalby, Charing-cross Hospital; J. L. Elliott, Leeds; S. R. Hallam, St. Thomas's Hospital; W. St. G. G. Hill, St. Mary's Hospital; B. Hogan, London Hospital; H. W. Hues, Birmingham; O. T. A. Phillips, Cardiff and London Hospital; R. C. Robertson, Charing-cross Hospital; J. M. Sanderson, London Hospital; T. B. Sellors and O. C. Sibley, Middlesex Hospital; N. Walmisley, St. Bartholomew's Hospital; A. J. Watson, St. Mary's Hospital; and W. R. Wilson, Dublin and Belfast.

The diploma of the Society was granted to the following candidates: Messrs. J. Buckley, W. A. Clement, S. R. Hallam, B. Hogan, M. Jenkins, T. C. Last, T. B. Sellors, and E. J. Trevor Jones, and Miss Pereira.

UNIVERSITY OF DURHAM.—At the first Examination for the degree of Bachelor in Medicine, held at the College of Medicine, Newcastle-upon-Tyne, in April, the following candidates satisfied the examiners:—

OLD REGULATIONS.

1. *Chemistry with Chemical Physics, and Botany with Medical Botany.*—William Purton Allen Hardwicke, College of Medicine, Newcastle-upon-Tyne.
2. *Chemistry with Chemical Physics.*—Francis Bernard Henry Caudwell, M.R.C.S., L.R.C.P., Charing Cross Hospital; Herbert William Dudgeon, M.R.C.S., L.R.C.P., Guy's Hospital; and Richard Denington Fisher, M.R.C.S., L.R.C.P., Loncon Hospital.
3. *Elementary Anatomy.*—William Ernest North Smith, College of Medicine, Newcastle-upon-Tyne.

NEW REGULATIONS.

1. *Elementary Anatomy and Biology, Chemistry, and Physics.*—*Second Class Honours:* Harry Jessop, Mason College, Birmingham. *Pass List:* Katharine Mary Helen Hawkins, London School of Medicine for Women; and Kenred Mason, Leonard Montgomery Markham, Leonard Clark Newton, Robert William Nevin, and Frederick Charles Ramsbottom, College of Medicine, Newcastle-upon-Tyne.
2. *Chemistry and Physics.*—Alice Maud Dodd and Ida Emilie Fox, London School of Medicine for Women; Henry Wallace Furnivall, University College Hospital, London; James Alfred Giles, College of Medicine, Newcastle-upon-Tyne; Ivon Henry Skipwith Hawes, St. George's Hospital; Florence Dyer Durell Ledgard, London School of Medicine for Women; and Edward Henry Milner-Moore, St. Mary's Hospital.
3. *Elementary Anatomy and Biology.*—Thomas Engelhart Amyot, College of Medicine, Newcastle-upon-Tyne; Anthony Bourchier Bradford, St. Thomas's Hospital; Clement Harlow Cox, Mason College, Birmingham; Marshall Haver and Ernest Edward Norman, College of Medicine, Newcastle-upon-Tyne; Thomas Eben Pemberton, Mason College, Birmingham; Ralph Stuart Renton, College of Medicine, Newcastle-upon-Tyne; Gayton Warwick Smith, Guy's Hospital; and Basil Edward Spurgin, College of Medicine, Newcastle-upon-Tyne.
4. *Elementary Anatomy, Chemistry, and Physics.*—George Ernest Froggatt, Middlesex Hospital; Alfred Ernest Gisburn, College of Medicine, Newcastle-upon-Tyne; Philip Arthur Hendley, King's College, London; Vincent Blumbardt Nesfield, St. Mary's Hospital; and Godfrey de Bec Turke, King's College, London.
5. *Elementary Anatomy.*—Charles Ravenscroft Stewart, St. George's Hospital.

FOREIGN UNIVERSITY INTELLIGENCE.—*Heidelberg:* Dr. Gottlieb has been promoted to the chair of Pharmacology, in succession to the late Dr. W. von Schroeder.—*Madrid:* Dr. Don Antonio Alonzo Cortés of Valladolid has been appointed to the Professorship of General Pathology, in succession to the late Dr. Letamendi.—*Montpellier:* Dr. Baumel has been appointed to the Clinical Professorship of Children's Diseases and will be the first occupant of the chair.—*Rome:* Dr. Giacomo Rem-Picci and Dr. Ferruccio Schupfer have been recognised as *privat-docenten* of Medical Pathology, Dr. Tullio Rossi-Doria as *privat-docent* of Midwifery and Gynæcology, Dr. Saverio Santori

as *privat-docent* of Hygiene, and Dr. Paolo Casciani as *privat-docent* of Medical Hydrology. — *Parma:* Dr. Camillo Lodigiani has been recognised as *privat-docent* of Surgical Pathology and Operative Medicine, and Dr. Serafino Patellina as *privat-docent* of Midwifery and Gynæcology.—*Turin:* Dr. Alberto Benedicenti has been recognised as *privat-docent* of Experimental Pharmacology.—*Vienna:* Dr. Emil Schwartz has been recognised as *privat-docent* of Internal Medicine.

MEDICAL MAGISTRATES. — Mr. F. H. Woods, L.R.C.P. Edin., M.R.C.S. Eng., J.P., of Uralla, and Mr. J. Baldwin Meredith. L.R.C.P., L.R.C.S. Edin. L.F.P.S. Glasg., J.P., of Raymond-terrace, have been appointed members of the Licensing Court for the licensing districts of Uralla and Raymond-terrace, New South Wales respectively.

A SEQUEL TO THE SKIN-GRAFTING CASE AT AUCKLAND.—At a meeting of the Auckland Charitable Aid Board an application from Dr. A. C. Purchas (defendant in the skin-grafting case which was reported by our New Zealand correspondent in THE LANCET of April 23rd), under date March 5th, for three months' leave of absence as honorary surgeon of the District Hospital was declined, and it was agreed to declare the office vacant and to call for applications for the position. In this connexion Mr. Baldwin wrote a memorandum to the secretary of the board stating that he had not received any official notification that Dr. Purchas had left the colony and as it was his week of duty he would be glad to know what arrangements were to be made for the care of his patients. It was unanimously resolved that should Dr. Purchas again apply for appointment to the honorary staff he should be asked to explain why he did not comply with the hospital regulations which provide that he should have arranged with the medical superintendent for the care of his patients when about to leave the hospital.

FACTORY GIRLS' COUNTRY HOLIDAY FUND.—The annual meeting of subscribers to this fund was held at the Mansion House on April 22nd. The Lord Mayor presided and said that during the past year 1250 girls had been sent into the country for 2120 weeks at a cost of £1230, of which he was glad to see that £246 were paid by themselves. Princess Christian had consented to become patroness in place of the late Duchess of Teck, who gave the fund her valuable support in the earliest and most difficult stage of its existence. He urged that one of the most satisfactory features of the work was that those who were sent away for a holiday contributed whenever possible to the expense and that therefore while they were helped they were not pauperised. Mrs. Garrett Anderson urged the immense importance of the country holiday to the girls and the pleasant and helpful recollections it provided them with all the year round. Mrs. Arnold White said that this was not a question of charity but of national importance. The factory girls were penned up in our great cities, shut out from all the health-giving delights of nature, and yet they were to be the mothers of the future. This crowding into the great cities was really deteriorating the fibre of the nation; the monotony of toil was part of the pathos of the city. Canon Newbolt, Miss Yeatman, Mr. Barton Kent (Master of the Skinners' Company), and Mr. W. G. Rawlinson also appealed most earnestly for increased support for the fund. The honorary secretary is Miss Canney, St. Peter's Rectory, Saffron-hill, London, E.C.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, APRIL 21ST.

The Food and Drugs Bill.

MR. CHAPLIN, replying to Mr. Channing, said he would introduce the Bill to amend the Food and Drugs Act as soon as he saw any prospect of making progress with the measure.

Imported Milk.

Major Rasch asked the President of the Local Government Board whether his attention had been called to the resolution passed by the Central Chamber on April 5th with reference to the importation of chemically treated French milk and whether he proposed to take any steps to exclude it.—Mr. Chaplin replied that his attention had been called to this resolution, but the Local Government Board had no power to prohibit the importation of milk into this country or any other article of food or drink and he had not at present evidence which would justify him in taking such action even if it were in his power.

Poisoning at Gosport.

Major Rasch asked the Financial Secretary to the War Office whether his attention had been called to the poisoning of certain soldiers by vinegar said to have been adulterated with arsenic at Gosport and whether he could say if the article was of foreign manufacture, and if not if he would give the name of the contractor.—Mr. Powell Williams replied that the inquiry which had taken place had shown that a further investigation was desirable, and he did not think it advisable at the present moment to make any detailed statement on the subject.

Prosser's Well at Maidstone.

Mr. Henry J. Wilson asked the Secretary to the Treasury, in view of the fact that the chemical officers of the Inland Revenue were appointed referees in disputed cases of adulteration under the Sale of Food and Drugs Act and that water was specially excluded from the operation of that Act under Clause 3, would he state whether it was in any way the duty of the chemical officers to undertake the analysis of water for sanitary purposes and act as referees in disputed cases; and under what authority the chemical officers of the Inland Revenue recently analysed the water taken from a well at Maidstone known as Prosser's Well and in their report expressed the opinion that the water was not liable to contamination; whether, as a consequence of such report, the application to the court to close the well was refused; was he aware that this well was in close proximity to houses in which no less than 14 cases of enteric fever occurred during the recent epidemic; and whether, seeing that the report was not signed by the chief of the laboratory, the action of these chemical officers was sanctioned by the responsible authority.—Mr. Hanbury said that under section 70 of the Public Health Act, 38 and 39 Vict. cap. 55 the magistrates were empowered if they saw fit to cause water of which complaint was made to be analysed at the cost of the local authority. In cases of difficulty the magistrates occasionally asked for the assistance of the Government laboratory and it had been the practice for many years when such assistance was asked for by the court to undertake an analysis of water. In the present instance the Justices at Maidstone requested the assistance of the Government laboratory and it was given in accordance with the usual practice. With regard to the latter part of the question he understood that evidence as to the possibility of danger arising from the local surroundings of the well was given before the court by the medical officer of health and that the magistrates on consideration of all the evidence before them decided to refuse the application. The action of the laboratory officers was not specially sanctioned by the Board of Inland Revenue in this particular instance, but those officers undertook the analysis at the request of the magistrates in accordance with a practice which had for years existed with the approval of the board.

Venereal Disease in the Indian Army.

Mr. James Stuart asked the Secretary of State for India whether he had received a memorial, signed by 79 registered medical women practising in the United Kingdom and in India, protesting against the measures recently enacted for dealing with venereal diseases in the Indian Army; and whether he would lay this memorial upon the table of the House in continuation of the Parliamentary Paper, East India Accounts and Papers, Memorials, and Representations, C. 8495, 415 and C. 8402 of last session.—Lord George Hamilton replied that he had received the memorial and it would shortly be presented to Parliament.

The Institute of Preventive Medicine.

Mr. MacNeill asked the Home Secretary whether he was prepared to grant a licence for the practice of experiments on the bodies of living animals to the new Institute of Preventive Medicine on the Thames-embankment at Chelsea; whether he was aware that a large building, called the animal house, was in course of construction at this institute, where the victims of vivisection experiments were to be kept while awaiting operation and in various stages of their sufferings, and that a crematorium was also in course of construction for the burning of the bodies of animals when destroyed by the vivisectors' experiments; whether he was aware that the Chelsea guardians had passed a resolution deprecating the granting of this licence and that a number of the occupants of the flats on the Embankment had protested against the establishment of this institute in the locality and had given notice to their landlords that they would leave their flats the moment it was established; and whether, having regard to the fact that a petition with 183,607 signatures was presented to the right honourable gentleman deprecating on behalf of the inhabitants of Chelsea the practice of vivisection in their midst, he would withhold his assent to the licensed practice of vivisection in Chelsea.—Sir M. White Ridley replied: I have already stated in this House that after full consideration of every aspect of the question and of representations to which the hon. Member refers I have not thought it possible to refuse the transfer of the registration of the Institute from the present buildings to the new premises in Grosvenor-road. I have satisfied myself that the arrangements at the new premises are perfectly suitable for the purposes for which they are registered. Of course, no painful experiments can be made there until the person wishing to perform them has been properly licensed to do so.

The Supply of Calf Lymph.

Mr. Chaplin, in reply to Mr. Pickersgill, stated that no arrangement had been made, or was proposed to be made, with the British Institute of Preventive Medicine for the preparation or supply by them of calf lymph. The arrangement made was for the hire by the Local Government Board of certain rooms at the Institute for the use of officers of the department in connexion with the preparation or supply of calf lymph by the Board.

The Powers of Vaccination Officers.

Mr. Broadhurst asked the President of the Local Government Board whether, in the case of relieving officers who are also vaccination officers, he intended that they should act in vaccination cases without the authority of the Poor-law guardians or even against their authority, and if so whether legislation would be necessary to provide this new power and if not under what Act the power was given.—Mr. Chaplin said, in reply, that he contemplated that relieving officers who were

vaccination officers should be in the same position in this matter as other vaccination officers and that vaccination officers should undertake prosecutions independently of any directions from the guardians themselves. No new legislation would be required. The vaccination officer would exercise these powers under the Vaccination Acts of 1867 and 1871 and under regulations issued by the Local Government Board under the provisions of the Act of 1874.

The Budget.

There was little of special interest to medical men in the Budget statement made at this sitting of the House by the Chancellor of the Exchequer. Sir Michael Hicks-Beach told the usual story of an increase in the revenue from beer and spirits and tobacco and he was able also to point to a great accession of popularity to the article of cocoa. In the way of concession to the taxpayer he announced his attention to make an abatement of £150 in incomes between £400 and £500, of £120 in incomes between £500 and £600, and of £70 in incomes between £600 and £700. These abatements refer to the amount upon which income-tax is charged.

FRIDAY, APRIL 22ND.

The Dum-Dum Bullet.

Mr. Davitt asked the Under Secretary of State for War whether his attention had been directed to the statements, attributed to Dr. von Brums, in a paper on "Inhuman Weapons of War," read a few days ago at the German Surgical Congress, to the effect that the Dum-Dum bullets used by British troops in the North-West frontier of India produced fearful results on the human body, and that Germany should try to obtain a condemnation from the European Powers of the further use of such bullets; whether any steps would be taken to meet these views; and whether he would forbid the sale of these bullets by British makers to the belligerents in the Spanish-American war.—Mr. Powell Williams said that he had no knowledge of the statements referred to or of the paper mentioned. He thought the general ideas as to the effect of the Dum-Dum bullet were very much exaggerated. It was nothing like so severe as that of bullets which had been previously employed.—Mr. Dillon asked whether the opinions of medical men had been taken by the War Office.—Mr. Powell Williams replied that the English medical officers of the army had been shown the results of the use of this bullet and they were of the opinion indicated in his answer.

Lead Poisoning in the Potteries.

Mr. Coghill asked the Home Secretary whether, to prevent the serious evils arising from the use of lead in the manufacture of china and earthenware, he would appoint a small committee of scientific experts to ascertain if it was possible to use a glaze which would be entirely free from lead in its composition.—Sir Matthew White Ridley replied that he was taking steps to secure the services of two eminent scientific experts to test and report on the various glazes, but it must be clearly understood that the inquiry could deal only with the question of the comparative danger or safety of different materials. The further question how far materials found to be harmless or relatively harmless lent themselves to the practical requirements of each section of the trade was one for the manufacturers to decide by experiment. He felt sure he might count on their coöperation in this matter and their readiness to adopt satisfactory substitutes, if such should be found, for the dangerous glazes now in use.

Prison Medical Officers.

Sir M. White Ridley, in answer to Mr. Pickersgill, said that in England and Wales there were ten local and five convict prisons which had a medical officer who was required to devote the whole of his time to the service.

Vaccination Prosecutions.

Mr. Labouchere asked the President of the Local Government Board whether all prosecutions for non-compliance with the obligations of the Vaccination Act had until now been instituted by boards of guardians; whether it was intended in future that they should be instituted by the medical officer of health, with or without the approval of the board of guardians, under directions from the Local Government Board; and whether the cost of such prosecutions would be a charge on the rates.—Mr. Chaplin replied that it had been the practice of the vaccination officers to institute proceedings under the Vaccination Acts either under general or special directions of the guardians, but he was not prepared to say that it had invariably been the case. There was nothing in these Acts which made it necessary that the guardians should give directions for or approve of these proceedings. It was not proposed that the proceedings should be instituted by the medical officers of health but by the vaccination officers who were under the statute appointed for the express purpose of prosecuting persons charged with offences against the Vaccination Acts or otherwise enforcing their provisions. The cost of prosecutions would be charged on the rates as at present. In reply to a further question Mr. Chaplin said that if vaccination officers refused to fulfil the duties for which they were appointed it would be the business of the Local Government Board to interfere.

The Plague and the Mecca Pilgrimage.

Sir Walter Foster asked whether, in view of the reappearance of plague in Jeddah this year, Her Majesty's Government intended to take any steps to stop the pilgrimage to Mecca from British possessions and from Egypt.—Mr. Balfour replied: It has been found unnecessary to take steps to prohibit the pilgrimage, so far as British Indian subjects are concerned, as the Government of India reports by telegraph that no more Indian pilgrims will leave India for the Hedjaz this season. As regards Malay pilgrims it was decided, when the first outbreak of plague at Jeddah was notified, that it was already too late to prohibit the pilgrimage, as all intending pilgrims for this year's Haj had already left the Straits Settlements. With reference to Egypt the question is one which directly concerns the Egyptian Government, but Her Majesty's Agent and Consul-General at Cairo reports that intending pilgrims have been warned of the danger from plague and informed that those who persist in going in face of this warning will be required to sign a declaration that they will not return to Egypt until the complete disappearance of the plague, and steps have been taken to prevent such return.

MONDAY, APRIL 25TH.

The Treatment of Inebriates.

The Home Secretary introduced and explained the Bill of the Government for the treatment of inebriates. The principal object of the measure, he said, was to substitute for the present penal treatment in prisons of habitual drunkards who rendered themselves amenable to the criminal law—called in the Bill criminal habitual drunkards—a reformatory treatment which should be undergone in institutions specially organised and established for the purpose. These buildings were referred to in the Bill as inebriate reformatories and might either be established by the State—called in the Bill State inebriate reformatories—or by county or borough authorities or private individuals—called in the Bill certified inebriate reformatories. The step now proposed to be taken had already been taken in several foreign countries, and in this country, besides being urged by many local authorities, had in particular been recommended by three recent departmental committees, the Home Office Committee on the Treatment of Inebriates in 1893, the Prisons Committee in 1895, and the Scotch Committee on Habitual Offenders in 1895. Two classes of criminal habitual drunkards were recognised in the Bill. There was first the class of offenders who were guilty of serious crime into which they had been drawn by habits of drunkenness. There was, secondly, the class of petty offenders who appeared continually before the summary courts charged with some one or other of the offences specified in Schedule 1 of the Bill. In their case the drunkenness was the crime or the greater part of it. The first class was deal with in Clause 1, the second in Clause 2. Power was given in both cases to commit to inebriate reformatories under certain conditions and safeguards. These conditions in the first case were that the offender must have been found guilty on indictment of the offence actually charged against him and that the fact of habitual drunkenness, unless admitted by him, must have also been found by the jury. In the second case the conditions were that the offender must be charged with one of the offences specified in Schedule 1 after three convictions of such offences within the previous twelve months, and that unless he consented to his case being disposed of summarily the matter should be tried by a jury. In these cases a committal would only be possible if the jury found both the fact that he had been so previously convicted and the fact that he was an habitual drunkard. The Bill proposed that as a general rule, to which the court would be able to make exceptions if other reformatories were willing to receive them, habitual drunkards of the first class should remain as at present under the complete control of the State and that any period of reformatory treatment to which they might be sentenced should be passed in one of the state reformatories, for which, however, there would be special regulations laid down by the Secretary of State. The second class would be treated in the certified reformatories. These reformatories would require a certificate from the Secretary of State, they would have to conform to the regulations as to management, classification, treatment, employment, &c., which by the Bill the Secretary of State was empowered to make, and they would be subject to inspection by the State. Provision was also made for a contribution from Imperial funds towards the expense of maintaining these institutions. In these respects the analogy of the Reformatory Schools Acts had to some degree been followed. The establishment of these reformatories was not made compulsory upon local authorities. In the case of both classes provision was made for allowing persons committed to reformatories to be released on licence. The second part of the Bill made some improvement in the existing Acts which dealt practically with non-criminal drunkards only. These Acts had not been largely operative and the committees he had alluded to, who made inquiry as to the reason, attributed the fact to the difficulties in the way of admission and readmission into the retreats, the shortness of the *maximum* period of detention allowed, the want of power to require the inmates to engage in healthy occupations, &c. Provision was accordingly made in the Bill to extend the *maximum* period of detention to which a patient might agree to submit himself to two years; to simplify, without weakening the safeguards against abuse, the procedure as regards admission and readmission; and to enable rules to be made regulating among other things the treatment and employment of patients. The Bill extended to England and Scotland, but he would be quite prepared to consider the question of its extension to Ireland.

TUESDAY, APRIL 26TH.

The Troops and Civilian Practitioners.

Colonel Welby asked the Under Secretary of State for War whether he was aware that at stations in the United Kingdom troops and those belonging to troops were in medical charge of civilian practitioners; and whether he could see his way to employing in their stead Army Medical Officers retired on a pension or gratuity, where no additional expense would be entailed on the country.—Mr. Brodrick replied: Yes, sir, a number of civilian practitioners are in charge of troops in the United Kingdom and always have been. Ninety-four medical officers retired on pension are employed and more would be employed if they were willing to accept appointments. There would be no objection to the employment of an officer retired upon a gratuity if he were considered suitable for such employment.

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Nightshade and Poppies. Verses of a Country Doctor. By D. Moore, M.B. 1898.

MACMILLAN AND CO., London.
Electro-physiology. By W. Biedermann. Translated by Frances A. Welby. Illustrated. Vol. II. 1898. Price 17s. net.

NEWNES, GEORGE, Southampton-street, Strand, London.
The Story of Photography. By A. T. Story. Illustrated. 1898. Price 1s.

PENTLAND, Y. J., Edinburgh.
Diabetes Mellitus and its Treatment. By R. T. Williamson, M.D. Lond., M.R.C.P. Illustrated. 1898.

REBMAN PUBLISHING COMPANY, Adam-street, Strand, London.
Tuberculosis of the Genito-urinary Organs, Male and Female. By N. Senn, M.D., Ph.D.; LL.D. Illustrated. 1898. Price 17s.
Pathological Technique: A Practical Manual for the Pathological Laboratory. By F. B. Mallory, A.M., M.D., and J. H. Wright, A.M., M.D. Illustrated. 1898. Price 14s.
Orthopedic Surgery. By James E. Moore, M.D. Illustrated. 1898. Price 14s.

SAMPSON LOW, MARSTON, AND CO., Fetter-lane, Fleet-street, London.
A Complete System of Nursing. Written by Medical Men and Nurses. Edited by Honnor Morten. 1898.

SPOTTISWOODE AND CO., Gracechurch-street, London, E.C.
The Dentist's Register for 1898.
The British Pharmacopœia for 1898.
The Medical Register for 1898.

STEINHEIL, G., Paris.
Les Hydrocéphalies. Par Dr. L. d'Astros. 1898.
La Thréapeutique des Empyémes. Par Dr. E. Cestan. 1898.

SWAN SONNENSCHEIN AND CO., London.
A Student's Text-book of Zoology. By Adam Sedgwick, M.A., F.R.S. Vol. I. 1898. Price 18s.
A Century of Vaccination and what it Teaches. By W. Scott Tebb, M.D. Cantab., D.P.H. 1898. Price 6s.

WRIGHT, J., AND CO., Bristol.
An Atlas of Histology. By Arthur Clarkson, M.B., C.M. Edin. 1898. Price 9s. net.
Surgical Technics in Hospital Practice. By K. W. Monsarrat, M.B., F.R.C.S. Eng. 1898. Price 3s. net.

Magazines, &c., for May: Strand Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Ludgate Magazine, Westminster Review, Contemporary Review, Friendly Greetings, Chapman's Magazine, Myra's Journal, Pall Mall Magazine, Windsor Magazine, Cornhill Magazine, Blackwood's Magazine, Pearson's Magazine, English Illustrated Magazine, Knowledge, Humanitarian, Wide World Magazine, and St. Peter's Magazine.

Appointments.

Successful Applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALLAN, E. B., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Officer of Health for Daylesford, Victoria, Australia, vice T. R. H. Wills, resigned.

ARMSTRONG, W. G., M.B., Ch.M. Syd., D.P.H. Camb., has been appointed Medical Officer of Health for the combined Metropolitan Districts, Sydney, New South Wales.

BRONTÉ, A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Public Vaccinator for the District of Shannon, New Zealand.

CHAWNER, A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Clay-lane Sanitary District of the Chesterfield Union.

CROOKS, LEWIS A., M.B., C.M., has been appointed Assistant House Surgeon (non-resident) to the Leith Hospital.

CUTHBERT, J., L.R.C.P., L.R.C.S. Edin., L.K.Q.C.P. Irel., has been appointed Health Officer for the Victoria Park District of Perth, Western Australia.

DEVEREUX, W. C., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Tewkesbury Sanitary District of the Tewkesbury Union.

DICK, ROBERT, M.B., Ch.M. Syd., has been appointed Medical Officer of Health for the combined Hunter River Districts of Newcastle, New South Wales.

FULTON, GEORGE C. H., M.B. and C.M. Glasg., has been appointed Medical Officer of Health by the Eston Urban District Council, vice J. A. Malcomson, deceased.

GALT, H., M.B., C.M. Glasg., D.P.H. Camb., has been appointed Professor of Forensic Medicine and Lecturer on Hygiene to the St. Mungo's College, Glasgow.

GODFREY, H. P., M.B., Ch.B. Melb., F.R.C.S. Eng., has been appointed Health Officer for Bardock, Western Australia.

GRANT, COSMO, M.B., C.M. Aberd., has been appointed Medical Officer for the Hadleigh Sanitary District of the Rochford Union.

GROOM, WM., jun., M.D. Camb., M.R.C.S., has been appointed Medical Officer for the First, Second A, and Eighth Sanitary Districts of the Wisbech Union.

HART, J. W., M.B., Ch.M. Edin., has been appointed a Government Medical Officer and Vaccinator for the District of Gunning, New South Wales, vice W. H. Tibbits.

HOPEWELL-SMITH, A., L.R.C.P. Lond., M.R.C.S. Eng., L.D.S. Eng., has been appointed Dental Surgeon to the Chelsea Hospital for Women, Fulham-road, S.W.

HUNT, J. S., L.R.C.P. Edin., M.R.C.S., has been appointed a Government Pathologist for Queensland.

JOHNSTONE, J. E. ST. GEO., M.B., B.Ch. Dubl., has been appointed Medical Officer for the Tirley Sanitary District of the Tewkesbury Union.

JONES, HUGH, M.B., C.M. Glasg., D.P.H., has been appointed Medical Officer of Health by the Dolgelly Rural District Council.

KENT, PERCY W., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Surgeon and Anæsthetist to the Royal Orthopædic Hospital, vice H. C. Crouch, resigned.

LETHBRIDGE, R. W., M.B., Ch.M. Edin., has been appointed Acting Medical Superintendent for the Ballarat Lunatic Asylum, Victoria, Australia.

LUKER, DONALD, M.B., Ch.M. Syd., has been appointed Medical Officer for the Brewarrina Hospital, New South Wales.

MELLISH, J. S., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Wells-next-the-Sea Urban District, vice F. Long, resigned.

MULLEN, W. L., M.D., Ch.B. Melb., has been appointed Acting Medical Superintendent for the Sunbury Lunatic Asylum, Victoria, Australia.

OLVER, THOS., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Plympton St. Mary Union.

PARKHURST, R., M.B., C.M. Edin., has been re-appointed Medical Officer of Health by the Long Sutton Urban District Council.

PERRY, E. V., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Great Witchingham Sanitary District of the St. Faith's Union.

PORTER, CHARLES, M.B., C.M., has been appointed Surgeon for the Out-door Department of the Leith Hospital.

ROBERTSON, F. W., M.B., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed Medical Officer in Charge of the Casualty Department of the East London Hospital for Children and Dispensary for Women, Shadwell.

ROOKE, CHARLES, M.R.C.S., has been appointed a member of the Emu Bay Board of Advice, Tasmania.

ROE, J. W., M.D. St. And., M.R.C.S., has been re-appointed Medical Officer of Health for the Welshampton Sanitary District of the Ellesmere Union.

SAW, A. J. H., M.B., B.S. Cantab., has been appointed a Governor of the High School, Perth, Western Australia, vice Sir A. C. Onslow, resigned.

SHARDLOW, JOSEPH, M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer for the East London Hospital for Children and Dispensary for Women, Shadwell, vice R. P. Cockburn, resigned.

SHAW, B. HENRY, M.B., B.Ch., B.A.O. Univ. Irel., has been appointed Second Assistant Medical Officer for the County Asylum, Stafford.

SIMPSON, FRANCIS ODELL, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Senior Assistant Medical Officer to the Govan District Asylum, Crookston, N.B.

SINCLAIR, ERIC, M.D., Ch.M. Glasg., has been appointed Inspector-General for the Insane of New South Wales, vice F. N. Manning, resigned.

SMITH, ALLAN A., M.B., Ch.B. Glasg., has been appointed Medical Inspector of Seamen for the port of Calcutta, India.
SMITH, W. L., L.R.C.P. Edin., M.R.C.S., has been re-appointed a District Surgeon for the Salford Royal Hospital.
STRUTHERS, JOHN WILLIAM, M.B., Ch.B., has been appointed House Surgeon to the Leith Hospital.
THOMPSON, J. L., M.B., Ch., Ch.M. Edin., has been appointed Acting Medical Superintendent for the Ararat Lunatic Asylum, Victoria, Australia.
TURNER, A. F., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Workhouse of the Tewkesbury Union.
WALKER, J. R. HALL, M.B., C.M., has been appointed House Physician to the Leith Hospital.
WILLIAMS, D. E., L.R.C.P., L.R.C.S. Irel., has been appointed Health Officer for Bunbury, Western Australia.
WILLIAMS, W. C., has been appointed a Public Analyst for the County Borough of Bootle.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BOROUGH OF MIDDLESBROUGH.—Medical Officer of Health. Salary £350 per annum, payable monthly. Applications to the Town Clerk, Middlesbrough.
CARDIFF INFIRMARY.—Assistant Resident Medical Officer for six months. Board, apartments, and washing provided.
CHESTER GENERAL INFIRMARY.—Assistant House Surgeon for six months. Salary at the rate of £40 per annum, with residence and maintenance in the house.
CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY, Wakefield.—Assistant House Surgeon, unmarried. Salary £60 per annum, with board, lodging, and washing.
DONCASTER GENERAL INFIRMARY AND DISPENSARY, Doncaster.—Indoor Dispenser and Assistant to the House Surgeon. Board, lodging, and washing provided.
EAST SUFFOLK AND IPSWICH HOSPITAL, Thoro'fare, Ipswich.—Senior House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.
ESSEX AND COLCHESTER HOSPITAL, Colchester.—House Surgeon, single or widower without family. Salary £100 per annum, with board, residence, and washing at the hospital.
GENERAL INFIRMARY, Gloucester, and GLOUCESTERSHIRE EYE INSTITUTION, Gloucester.—Assistant Surgeon.
GUEST HOSPITAL, Dudley.—Resident Assistant House Surgeon, for six months. Salary at the rate of £20 per annum, with board, lodging, and washing in the hospital.
HANTS COUNTY ASYLUM, Farnham.—Third Assistant Medical Officer, unmarried. Salary £100 per annum, increasing to £125 after twelve months' service, with furnished apartments, board, washing, and attendance.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.
HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, London.—Honorary Physicians and Honorary Surgeons.
HOSPITAL FOR SICK CHILDREN, Great Ormond street, Bloomsbury, London.—House Physician, for six months, unmarried. Salary £20, with board and residence in the hospital. Also House Surgeon to out-patients (non-resident), for six months. Salary 25 guineas.
HOSPITAL FOR WOMEN, Soho-square, London, W.—House Physician for six months. Salary £30 for that period. Also non-resident Clinical Assistant.
HULL AND SCULCOATES DISPENSARY, Parliament-street, Hull.—House Surgeon. Salary £200 per annum, with house (unfurnished), coals, and gas.
LONDON COUNTY ASYLUM, Claybury, Woodford-bridge, Essex.—Junior Assistant Medical Officer. Salary £150 per annum, with board, furnished apartments, and washing. Applications to the Clerk of the Asylum Committee, 21, Whitehall-place, S.W.
LONDON LOCK HOSPITAL, 91, Dean-street, W.—Surgeon to out-patients. Applications to the Secretary at Harrow-road, W. Also House Surgeon to the Female Hospital, Harrow-road, W. Salary £50 per annum, with board, lodging, and washing.
NORFOLK AND NORWICH HOSPITAL, Norwich.—Honorary Physician.
NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer and Assistant Resident Medical Officer, each for six months. Salary at the rate of £50 per annum attached to the senior post.
SEAMEN'S HOSPITAL SOCIETY (Dreadnought), Greenwich, S.E.—House Surgeon for the Dreadnought Hospital, Greenwich. Salary £50 per annum, with board and residence. Also Junior House Surgeon for the Branch Hospital, Royal Albert Dock, E. Salary £50 per annum, with board and residence. Applications to the Secretary, Greenwich.
SUFFOLK COUNTY ASYLUM.—Second Assistant Medical Officer, for three years, unmarried. Salary £100 a year, with board, lodging, washing, and attendance. Applications to the Medical Superintendent, Melton, Suffolk.
TUNBRIDGE WELLS EYE AND EAR HOSPITAL.—Lady House Surgeon. Salary £60, and board and lodgings. Applications to the Honorary Secretary, 3, the Pantiles, Tunbridge Wells.
WARNEFORD HOSPITAL, Leamington.—House Surgeon for six months. Salary at the rate of £100 per annum, with board, lodging, and washing.
WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, Welbeck-street, London.—Honorary Surgeon.
WEST HERTS INFIRMARY, Hemel Hempstead, Herts.—House Surgeon and Dispenser for two years; unmarried. Salary £100 per annum, with furnished rooms, board, fire, lights, attendance, and washing.
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL INFIRMARY, Wolverhampton.—House Physician, who will be required to act as Medical Registrar, Pathologist, and Anæsthetist, for one year. Salary £100 a year, with board, lodgings, and washing. Also House Surgeon and to act as Surgical Registrar for one year. Salary £100 a year, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ANDERSON.—On April 23rd, at "Limehurst," Moor-park, Preston, Lancashire, the wife of Joseph Anderson, M.B., of a son.
CORNER.—On April 21st, at Brook House, Southgate, N., the wife of Harry Corner, M.D., of a son.
DOLAMORE.—On April 21st, at Queen Anne-street, W., the wife of W. H. Dolamore, M.R.C.S., L.R.C.P., of a daughter.
FLEMING.—On April 25th, at Norton Lodge, Arkwright-road, Hampstead, the wife of Alex. J. Fleming, M.D., of a son.
GOODMAN.—On April 22nd, at Elmside, Kingston-on-Thames, the wife of Roger N. Goodman, M.D. Cantab., of a son.
GRUMMITT.—On April 20th, at Kingsbridge, S. Devon, the wife of Charles C. Grummitt, M.R.C.S., L.R.C.P., of a daughter.
HAYWARD.—On April 22nd, at Kenninghall, Norfolk, the wife of Arthur B. Hayward, M.R.C.S., of a daughter.
LEMON.—On April 23rd, at Burnt Ash-road, Lee, Kent, the wife of Edward Henry Lemon, M.R.C.S., L.R.C.P. Lond., of a son.
NORMAN.—On April 13th, at Heaton-road, Withington, Manchester, the wife of Harry W. Norman, L.D.S. R.C.S. Eng., of a daughter.
PATERSON.—On April 23rd, at Windsor-place, Cardiff, the wife of D. R. Paterson, M.D. Edin., of a son.
PRATT.—On April 23rd, at Penrhos House, Rugby, the wife of W. Sutton Pratt, M.D., L.R.C.P. Lond., of a son.

MARRIAGES.

BARKER—HENDERSON.—On April 19th, at Christ Church, Clifton, Toft Barker, L.R.C.P., M.R.C.S., of Corfe Castle, Dorset, to Geraldine Edith, elder daughter of Charles F. Henderson, of Flax Bourton, Somerset.
BRINDLEY-JAMES—GILBERT.—On April 23rd, at St. James's Church, Piccadilly, Joseph Brindley-James, L.R.C.P., M.R.C.S., A.K.C. Lond., to Ellen, daughter of the late Robert Gilbert, of St. Ives, Cornwall.
COWAN—HAMILTON.—On April 20th, at SS. Michael and All Angels' Church, Helensburgh, John M. Cowan, B.A., M.B., B.C., youngest son of the late John B. Cowan, M.D., LL.D., Professor of Materia Medica in the University of Glasgow, to Maud Mary, eldest daughter of George W. Hamilton (formerly of Calcutta), View Park, Row, Dumbartonshire.
CROSBY—WOOLLEY.—On April 21st, at St. John the Baptist Church, Leicester, Thomas Villiers Crosby, M.B Lond., of Osgathorpe House, near Loughborough, to Florence Kate Blennerhassett, second daughter of George J. Blennerhassett Woolley, of Brackendale, Stoneygate, Leicester.
FURNIVALL—BUTLIN.—On April 23rd, at St. Andrew's, Wells-street, Percy Furnivall, F.R.C.S., of Welbeck-street, Cavendish-square, W., to Olive Mary, elder daughter of Henry Trentham Butlin, F.R.C.S., of Harley-street, W.
GALLOWAY—SAWERS.—On April 21st, at St. John's Church, Blackheath, by the Rev. J. W. Marshall, B.A., vicar, James Galloway, M.D., eldest son of the late James Galloway of Calcutta, to Jessie Hermina, elder daughter of the late Robert Orr Sawers of Calcutta and Blackheath.
GROGHEGAN—JOYNSON.—On April 20th, at the parish church, Wimbledon, by the Rev. R. de Ritchie and the Rev. E. A. Kempson, M.A., vicar of Merton, Albert Victor Geoghegan, M.D. Dublin University, second son of the late Robert Geoghegan, to Flora Letitia, younger daughter of Paymaster-in-Chief Thomas Owen Joynson, R.N., of Cromwell House, Wimbledon.
MIDDLEMASS—ELKINS.—At All Saints', Leavesden, Herts, on April 23rd, by the Rev. A. Wilson, vicar, James Middlemass, M.B., F.R.C.P.E., Medical Superintendent of Sunderland Borough Asylum, to Loui, elder daughter of Joseph Elkins, of Stanford Mear, Rugby.
PRALL—HUNT.—On April 20th, at St. Mary's, Bampton, Oxfordshire, by the Rev. Herbert Hunt (Bournemouth), brother of the bride, assisted by the Rev. W. K. Hampshire, vicar, John Henniker, M.R.C.S., L.R.C.P., second son of John Thomas Prall, solicitor, of Rochester, Kent, to Beatrice, fifth daughter of the late Rev. E. G. Hunt, Vicar of Bampton, and Mrs. Hunt of "St. Stephen's," Bampton.
WHITE—BUDD.—On April 23rd, at New Barnet, Malcolm White, M.R.C.S., L.R.C.P., eldest son of Brigade-Surgeon White, M.D., of Southsea, to Ethel Palmer, eldest daughter of J. T. Budd, Amblside, New Barnet, Herts.

DEATHS.

CARTER.—On April 24th, at Kenilworth, Clapham Common, aged 26 years, Wilfrid Becher, youngest son of Robert Brudenell Carter, F.R.C.S., of Kenilworth and 31, Harley-street.
CHALDECOTT.—On April 22nd, at Rose Hill House, Dorking, Horace Chaldecott, M.R.C.S.E., aged 64 years.
GOVAN.—On April 1st, at Almera, N.W.P. India, Brigade-Surgeon George Moncrieff Govan, M.D., Bengal, Retired, late 3rd Gorkhas, aged 69 years.
HALL.—On April 23rd, at Newlands House, Tooting, Edward Thomas Hall, M.R.C.S., for 36 years Medical Superintendent at Blacklands House and Newlands House, aged 67 years.
HEWLETT.—On April 18th, at Cannes, France, Caroline Julia, wife of John C. Hewlett, Esq., of Hillside House, Beckenham, Kent, and 40, 41, and 42, Charlotte-street, London, E.C.
MARSHALL.—On April 24th, at his residence, Caledonian-place, Clifton, Bristol, after a short illness, Henry Marshall, M.D., F.R.S. Edin., F.R.C.S., aged 65 years.
SPICER.—On April 16th, at North Molton, Devon, Robert Henry Scanes Spicer, M.D. St. And., M.R.C.S. Eng., L.R.C.P. Edin., in his 71st year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.).

WEDNESDAY (4th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.).

THURSDAY (5th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.).

FRIDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (7th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.) St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (2nd).—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-square).—8 P.M. Papers:—Mr. A. Coleman: A Method for Administering Anæsthetics through the Nose with the object of prolonging Narcosis during Operations on the Mouth.—Mr. W. R. Ackland: Notes on Catarrh of the Antrum. Casual Communication by Mr. G. Thomson.

TUESDAY (3rd).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Payne: sections of Liver from a case of Acute Yellow Atrophy of the Liver.—Prof. Kanthack: The Distribution of Leprosy Bacilli in the Tissues, and the Origin of Giant-cells in Leprosy.—Dr. R. Bradford: Hæmatoma in a Hydronephrotic Kidney.—Dr. H. Walsham: Latent Tuberculosis of the Tonsils.—Dr. P. Weber: Chronic Endophlebitis Proliferans, microscopic specimens illustrating a condition not rarely felt in middle-sized superficial veins.—Dr. Andrewes, Dr. Garrod, Dr. Drysdale, Dr. Still, and Dr. Batten: Hæmorrhage into the Suprarenal Capsules in Infants.—Dr. L. Freyberger: (1) External Rupture of an Aneurysm of the Ascending Portion of the Arch of the Aorta; (2) The Minute Structure of an Anæmic Infarct of the Lung.—Dr. Rolleston: (1) Pin in the Vermiform Appendix; (2) Round Pellets in a Dermoid Cyst. (Card Specimens).

WEDNESDAY (4th).—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Targett, Dr. Horrocks, Mr. Doran, and others. Papers:—Dr. C. H. Roberts: Case of Primary Carcinoma of the Fallopian Tube.—Dr. A. W. W. Lea: The Sagittal Fontanelle in the Heads of Infants at Birth.

SOUTH-WEST LONDON MEDICAL SOCIETY (Wandsworth Town Hall).—8 P.M. Discussion on The Midwives Bill, 1898 (opened by Mr. T. A. I. Howell).

THURSDAY (5th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-sq., W.).—8 P.M. Clinical Evening. Cases and Specimens will be shown by Mr. W. C. Rockliffe (Hull), Mr. Ridley (Leicester), Mr. Devereux Marshall, Surgeon-Captain H. Herbert, and Dr. G. H. Hogg.

FRIDAY (6th).—WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8.30 P.M. Papers will be read by Mr. McA. Eccles and Mr. Tubby.

WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.15 P.M. Mr. W. A. Lane: A few remarks on the Principles that should guide us in Operations for Cancer. To be followed by a discussion. Messrs. Maw, Son, and Thompson: Exhibition of Surgical Instruments before the Meeting.

LECTURES, ADDRESSES, DEMONSTRATIONS, ETC.

MONDAY (2nd).—ROYAL INSTITUTION.—5 P.M. Annual Meeting.

LONDON POST-GRADUATE COURSE.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. E. LAW: Examination of Ear, Throat, and Nose.

TUESDAY (3rd).—ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Dr. S. M. Copeman: On the Natural History of Vaccinia. (Milroy Lecture.)

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Abraham: Keratoses.

CITY ORTHOPÆDIC HOSPITAL.—5.30 P.M. Mr. C. Williams: Angular Curvature of Spine.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. Buzzard: Lecture.

WEDNESDAY (4th).—LONDON POST-GRADUATE COURSE.—Parkes Museum, Margaret-st., W., 4.30 P.M., Prof. A. Wynter Blyth: Refuse Removal and Disposal.

THURSDAY (5th).—ROYAL COLLEGE OF PHYSICIANS—5 P.M. Dr. S. M. Copeman: On the Natural History of Vaccinia. (Milroy Lecture.);

CHARING-CROSS HOSPITAL.—4 P.M. Dr. Green: Clinical Demonstration of Cases in the Wards. (Post-graduate Class.)

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Prof. K. McLeod: Physical Requirements of the Public Services.

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Voelcker: Demonstration of Selected Cases.

FRIDAY (6th).—LONDON POST-GRADUATE COURSE.—King's College 3 to 5 P.M., Dr. Wilkinson: The Microscope and Methods of Cultivation.

ROYAL INSTITUTION.—9 P.M. Mr. E. A. Minchin: Living Crystals.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

HOSPITAL MEDICAL OFFICERS' FEES AT CORONERS' INQUESTS.

In the Court of Queen's Bench on April 21st an appeal was heard from a decision of the Brentwood county-court judge. The plaintiff was a medical man and the defendant was the coroner for the district. The plaintiff, Mr. C. J. Horner, is the honorary medical officer to a Children's and General Hospital at Walthamstow, and he had attended a child who died in the hospital and on whose body an inquest was held. Mr. Horner made a post-mortem examination and gave evidence at the inquest. For this he claimed a fee of two guineas, which the coroner refused under the well-known section of the Coroners Act which precludes the medical officer o a hospital from the right to receive a fee for such services in the case of an inquest on anyone who has died in a hospital or other public medical institution. A friendly action was brought to test the case and the county-court judge said that the fee was not recoverable. In the appeal it was argued that the hospital in question was not a public institution, but the court dismissed the appeal. There can be no question in this case that Mr. Horner had no right to expect a fee as the law stands. Whether the State has a right to expect medical men to give up their time and perform very responsible duties is another question, but the hospital in question is certainly a public institution and Mr. Horner is medical officer of it even though he receives no kind of salary or honorarium.

"UNDESIRABLE PUBLICITY."

To the Editors of THE LANCET.

SIRS,—The attention of the medical staff of the Royal Halifax Infirmary has been drawn to a paragraph under the above heading in THE LANCET of April 23rd. We need scarcely say that the gentleman mentioned neither authorised nor knew of

the insertion of the advertisement and paragraph referred to. The advertisement was drawn up by the senior honorary secretary, but unfortunately was not seen by the medical staff before insertion. The reason why it was not submitted to the medical staff was that the advertisement had to be in on Good Friday and on that day the honorary secretary tried but was unable to communicate with any of the members of the staff, as three were out of town and two were not at home on the afternoon of that day. Anyone reading the advertisement would easily see that it had been drawn up by a layman and that the intention was not to advertise any individual member of the staff but simply to let the public know that the special department had been opened. I am requested by the medical staff to state that neither collectively nor individually have they authorised the form of the announcement and they regret and disapprove of the form in which it appears. I am, Sirs, yours faithfully,

PRIESTLEY LEECH,
Halifax, April 26th, 1898. Secretary to the medical staff.

THE RECENT INQUIRY AT THE BRISTOL CHILDREN'S HOSPITAL.

Two correspondents have written to us asserting that the address affixed to Dr. Christie's letter printed in our columns last week—viz., Church House Children's Hospital, East-street, Bedminster—is a misleading one inasmuch as, they say, there is no hospital at the address. An advertisement from a local paper has also been sent to us in which Church House, East-street, Bedminster, is given as an address where applications may be made concerning a Nursery Aid Society. In this advertisement no mention is made of the House being used as a hospital. If Church House is a *bond-fide* children's hospital we shall be happy to publish Dr. Christie's or anybody else's statement to that effect, but if it is not we strongly advise him to alter the wording of his address for the future.

AN IMPORTANT QUESTION.

To the Editors of THE LANCET.

SIRS,—I should feel glad if you can advise me in the following. For some time I have been attending a patient who suffers from angina pectoris and who has benefited by the treatment. A few days ago a relative called upon me and told me my services would not be required further, as they had called in a chemist who does a lot of doctoring around this neighbourhood to attend him. As I expect the case to end fatally within a short time am I justified in giving a death certificate under the circumstances? Is it legal? and, if so, am I not covering the quack? Thanking you in anticipation,

I am, Sirs, yours faithfully,
April 26th, 1898. M.D.

*** We think that a certificate should on no account be given under such circumstances.—ED. L.

A NEW COPYING MACHINE.

THE Autographic Company of Middlesbrough have brought out a new process for making copies of manuscripts, drawings, plans, and the like. The original MS. or drawing must be executed with a special ink upon a special paper. This paper is covered with some substance which the ink destroys. When the wording or design is complete it is laid face downwards upon the inking sheet. Where the substance on the paper is unaffected by the ink used for writing it comes off on the inked printing sheet, thus forming a protecting film, but the written or drawn lines having destroyed this substance no film is formed by them, therefore the printing ink is exposed. Impressions are then taken off exactly as in the case of an ordinary form of type. The whole apparatus is very simple and inexpensive. It is made in various sizes from ordinary letter size up to brief.

JOHN PAGE HENTSCH APPEAL.

To the Editors of THE LANCET.

SIRS,—I beg to submit a list of subscriptions received up to date.

I am, Sirs, yours faithfully,
410, Brixton-road, S.W., April 26th, 1898. G. DAVID KNIGHT.

	£	s.	d.		£	s.	d.
Dr. W. Domett Stone ...	1	1	0	One who knew him as a boy	1	0	0
Dr. Chas. Terry	5	0	0	A. X.	0	10	6
Dr. C. W. Chapman ...	1	1	0	A Friend	1	1	0
Dr. John Durno	0	10	6	A Friend, per W. H. ...	5	0	0

HAND-FEED TOOL FOR CHAFF-CUTTING MACHINES.

DEPLORABLE accidents involving the loss of both hands not unfrequently happen to men who have to feed chaff-cutters worked by horse-power or driven by an engine. The usual course of events is that in consequence of something preventing the supply of hay being properly drawn into the machine the man forces it between the rollers with his hand which is thereupon drawn in along with the hay, and the man, not having the presence of mind to reverse the gear and free his hand, instinctively uses the other hand to help the one which is caught, the consequence being that both share the same fate. To prevent men incurring such great danger by bringing their hands in contact with the rollers Mr. James Gillingham, Prospect House, Chard, Somerset, has devised an instrument which he has called the "Hand Feed." It does not contain any complicated parts, but consists of a plate fixed to a wooden handle and provided with teeth somewhat like those of a rake, curved for the purpose of gathering up the hay. It may be obtained either from the inventor or from dealers in agricultural implements. In illustration of the necessity for some such safeguard Mr. Gillingham has sent us photographs of eight workmen who have lost both hands and either portions or the whole of both forearms by chaff-cutting machinery.

WANTED A HOME.

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me where I can place a young man suffering from general paralysis of the insane. He is very quiet, orderly, can attend to himself, and does not require much supervision. Terms 12*s.* weekly. I am, Sirs, yours faithfully,
April 27th, 1898. W. B. R.

THE "READORITE."

MR. F. DAVIDSON of 120, Great Portland-street has designed this apparatus for the use of those who have undergone the operation of lens extraction for cataract, engravers, retouchers, and others. It consists of a large bi-cylindrical lens fitted over a writing-desk so that it can be adjusted at any angle or focus. The book or other thing to be seen is, of course, laid on the desk and the lens runs easily along a slide. The lenses are made of different focal lengths. We have tried the apparatus for reading a book printed in "brilliant" type and found it answer well. The price is £3 3*s.*

Medicus.—Many medical men have recently gone to South Africa, but for those who can rough it there is still room. It is our opinion, however, that there is no opening at all for men who are not in the best of health as it is the recent settlements which require to be served, not the old-established towns where the standard of personal comfort is high.

Surgery.—Our correspondent is advised to consult the advice which has been given for several consecutive years in the Students' Number of THE LANCET. Under the circumstances which he mentions we recommend Treves's "System of Surgery," Jacobson's "Operations of Surgery," and Pepper's "Surgical Pathology."

Advice.—Such a circular letter would be in order if it is only sent to the writer's own patients. We understand from our correspondent's letter that he sees the necessity for this limitation.

Mr. James Brown.—We are unable to give the information asked for but have forwarded the inquiry to our local correspondent.

Mr. W. M. Taberner.—We will obtain the information with pleasure.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 28th, 1898.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
April 22	30·11	E.	...	78	51	39	41	43	Overcast
" 23	30·07	E.	...	87	57	37	41	44	Cloudy
" 24	30·17	E.	...	98	58	39	46	51	Cloudy
" 25	30·14	N.E.	...	80	55	38	45	47	Cloudy
" 26	29·86	E.	0·16	87	60	44	45	46	Overcast
" 27	29·53	ESE	0·23	78	58	46	51	52	Overcast
" 28	29·54	N.	...	58	53	49	51	52	Overcast

During the week marked copies of the following newspapers have been received: *Hastings Times, Alliance News, Sheffield Telegraph, Newcastle Weekly Chronicle, South Wales Daily News, Mark Lane Express, Eastern Morning News, Carmarthen Weekly Reporter, Manchester Guardian, Leicester Post, Huddersfield Examiner, Times of India, Birmingham Post, Pioneer Mail, Western Mercury, Sussex Daily News, Liverpool Daily Post, Architect, Chard News, Glasgow Herald, Llanelly Mercury, Nottingham Evening Post, Brighton Gazette, Yorkshire Post, Builder, Bristol Mercury, The New Age, Morning Leader, Leeds Mercury, Western Australian, Wigan Examiner, Scotsman, Citizen, Hertfordshire Mercury, City Press, Mining Journal, Local Government Chronicle, Reading Mercury, Australasian Medical Gazette, Guy's Hospital Gazette, Surrey Advertiser, Local Government Journal, Buchan Observer, Keene's Bath Journal, Burton Chronicle, Herne Bay Argus, Poole Herald, Loughborough Monitor, Keighley News, Dundee Advertiser, Yarmouth Advertiser, Hinckley Times, Nairnshire Telegraph, Stirling Observer, Morpeth Herald, Framlingham Weekly News, West Middlesex Herald, Evening Times (Glasgow), Western Mail, Prestwich and Whitefield Guardian,* &c., &c.

Communications, Letters, &c., have been received from—

A.—Mr. G. R. Anderson, Southport; Messrs. Armour and Co., Lond.; *Allgemeine Wissenschaftliche Berichte*, Berlin; Messrs. Allen and Hanburys, Lond.; A. R., Lond.; Messrs. J. and R. Archibald, Tillicoultry.

B.—Mr. C. Birchall, Liverpool; Mr. S. H. Benson, Lond.; Messrs. Burgoyne, Burbidges, and Co., Lond.; Bromley Union, Clerk of; Messrs. A. and C. Black, Lond.; Dr. A. W. G. Bagshawe, Lond.; Dr. F. T. Bond, Gloucester; Mr. R. Burney-Young, Lond.; *Birmingham Daily Post*, Proprietors of.

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G.—Mr. J. H. Glennie, Lossiemouth; Dr. J. G. Gordon-Munn, Bushey; Gloucester General Infirmary, Secretary of; Miss Ada Gibbons, Edgbaston; Dr. A. H. Griffiths, Manchester; General Medical Council, Lond., Registrar of; Mr. H. J. Gibbs, Singapore.

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I.—*Illustr. Rundschau der Medizin-Chirurg. Technik*, Bern.

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L.—Mr. R. L. Leyba, Hamburg; *La Pratique Médicale*, Paris, Editor of; Mr. W. McLaurin, Lond.

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W.—Dr. J. R. Whitaker, Edinburgh; West Herts Infirmary, Hemel Hempstead, Assistant Secretary of; West End Hospital for Diseases of the Nervous System, Lond., Secretary of; Messrs. W. Woollams and Co., Lond.; Messrs. W. Wood and Co., New York; Mr. J. Wright, Birmingham; Mr. C. L. Worrall, Barberton, South Africa; Warneford Hospital, Leamington, Secretary of; Messrs. J. Wright and Co., Bristol.

Y.—Dr. M. Young, Crewe.

Letters, each with enclosure, are also acknowledged from—

A.—Mons. J. Astier, Paris; Mr. E. Appleton, Thornaby-on-Tees; A. Z., Lond.; Dr. H. H. Aitchison, Alpha, Lond.; Albemarle, Lond.; Argentum, Lond.; A. B. Sheffield; Aston Union, Clerk of; A. B., Lond.

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U.—Union Assurance Society, Lond., Secretary of.

V.—Messrs. G. Van Abbott and Son, Lond.; Mr. Van Praagh, Lond.

W.—Mr. E. H. Worth, St. Day; Dr. N. C. Ward, Chichester; Dr. W. Westcott Lond.; Mr. F. A. Wagstaff, Saffron Walden; West End Pathological Laboratory, Lond.

Z.—Zeta, Lond.

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